

CANADIAN INDUSTRY IN 1871

Ontario County Series #6

FRONTENAC COUNTY INDUSTRIES, 1871 INDEX TO MANUSCRIPT CENSUS

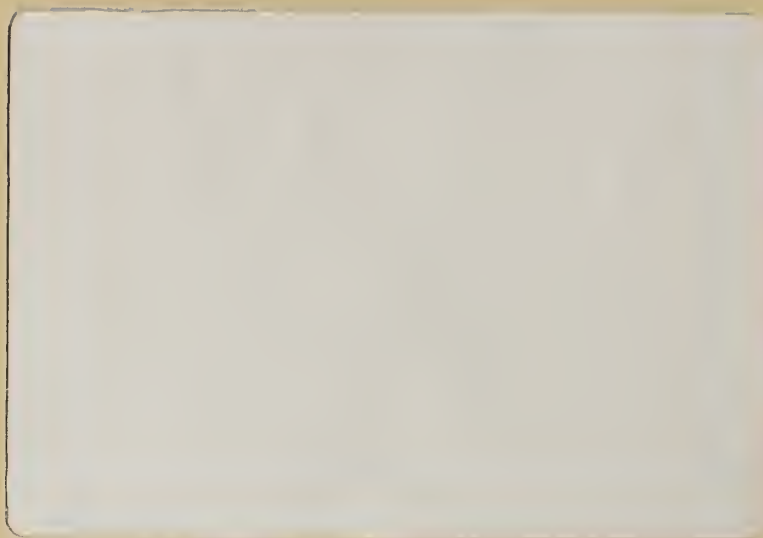
G.T. Bloomfield & Elizabeth Bloomfield

G.T. Bloomfield, series editor



Ref
HC
117
O6B5716x
1991
Porter
Rare Book

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Cover Illustration (selected and described by G.T. Bloomfield)

The view of Whitevale, Township of Pickering, was chosen to illustrate Canadian industry in 1871. At this time, a high proportion of manufacturing activity was still located in small settlements, some of which were growing rapidly into towns. **Lovell's Directory** (1871) described Whitevale as:

A thriving village...[with] extensive flouring and woollen mills... Montreal Telegraph Co has an office here. Distant from Whitby, the county town, and a station of the Grand Trunk Railway, 13 miles. Mail daily. Population about 250.

Truman P. White has acquired the water rights at Majorville on Duffin's Creek in 1845 and developed a grist mill, a saw mill and, later, a woollen mill. By 1871 the census enumerated six significant industrial establishments employing 66 workers and with a total value of production amounting to \$125,000. The transition from waterwheels (70 horsepower) to steam engines (66 horsepower) was already apparent in the village by this date. In common with its counterparts across the country, Whitevale's basic industrial activities were closely associated with the local agricultural area. There was also considerable economic integration apparent in the ownership of several establishments by Truman P. White and in the making of staves in the sawmill for the cooper shop which in turn supplied the flour mill with basic containers for transporting the flour to market.

Unlike many of its contemporaries, Whitevale has remained about the same size ever since 1871. The 1971 census recorded a population of only 273 in the unincorporated settlement. Whitevale never achieved connection by railway, county road or provincial highway. Much of the surrounding land was acquired for the planned Pickering airport and new town in 1972/3 and today the settlement is threatened by the creation of a municipal solid waste dump for Metropolitan Toronto and the Durham Region.

The illustration was first published in the **Illustrated Historical Atlas of the County of Ontario** (Toronto: J.H. Bees and Co., 1877), reprinted Ross Cumming, 1972).

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CANADIAN INDUSTRY IN 1871 (CANIND71) PROJECT

Ontario County Series #6

**FRONTENAC COUNTY INDUSTRIES, 1871
INDEX TO MANUSCRIPT CENSUS**

G.T. Bloomfield & Elizabeth Bloomfield

G.T. Bloomfield, series editor

Department of Geography

University of Guelph

Copies may be ordered from:

CANADIAN INDUSTRY IN 1871 PROJECT
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GUELPH, ONTARIO
N1G 2W1

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Canadian Cataloguing in Publication Data

Bloomfield, G. T. (Gerald T.)

Ontario county series : index to manuscript census

(Canadian industry in 1871)

Partial contents: v. 6. Frontenac County
industries, 1871.

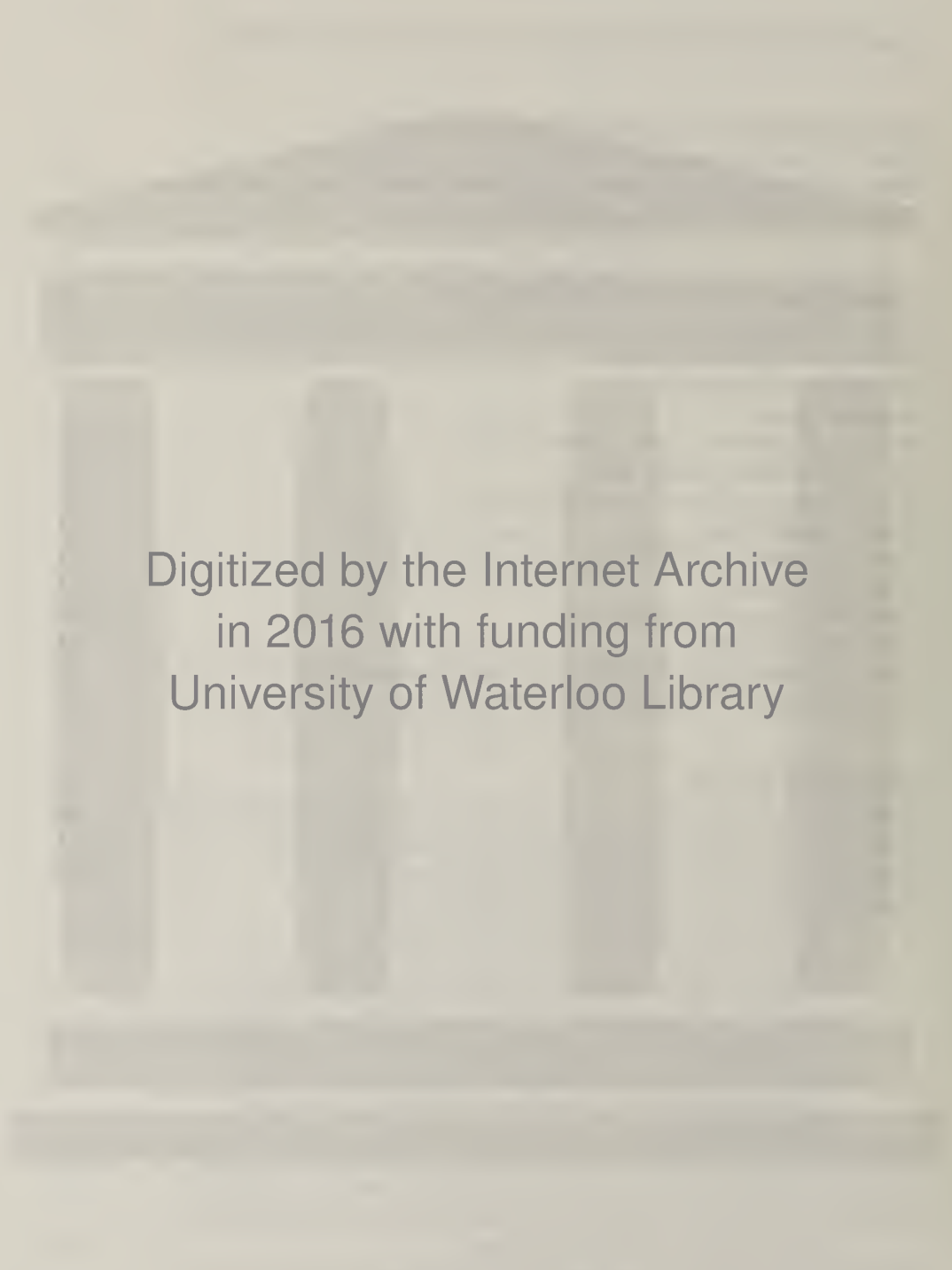
ISBN 0-88955-253-3 (v. 6)

1. Ontario - Industries - History - 19th century -
Indexes. 2. Ontario - Economic conditions -
1867-1918 - Indexes.* 3. Ontario - Census, 1871 -
Indexes. 4. Canada - Census, 1871 - Indexes.
5. Ontario - Industries - History - 19th century.
6. Ontario - Economic conditions - 1867-1918.*
7. Ontario - Census, 1871. 8. Canada - Census,
1871. I. Bloomfield, Elizabeth. II. University
of Guelph. Dept. of Geography. III. Title.
IV. Series.

HC117.05B5 1991 338.09713'09'034 C91-094495-4

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CANADIAN INDUSTRY IN 1871: ONTARIO COUNTY SERIES

The first Census of Canada was taken at a time when the "hum of industry" was believed to be an essential sign of a community's progress, usually associated with the benefits of railway connections. Many people at this time seem to have shared Thomas Keefer's vision of "the civilizing tendency of the locomotive":

A town has been built and peopled by the operatives -- land rises rapidly in value -- the neglected swamp is cleared and the timber is converted into all sorts of wooden "notions" -- tons of vegetables, grains or grasses are grown where none grew before -- the patient click of the loom, the busy hum of the spindle, the thundering of the trip-hammer and the roaring of steam, are mingled in one continuous sound of active industry.¹

The CANIND71 database created from the manuscript census schedules of industrial establishments is used in this series to provide snapshots of industrial activity in Ontario just after Confederation, at a time of transition in technology, business organization and work discipline. The 36 Ontario counties varied in the amount and intensity of "active industry", depending on how long they had been settled, how much of their population lived in cities and towns, and how well connected they were by rail or water transport.

One title in the CANIND71 series of research reports has already examined the mix of industrial activity in Wellington County, Ontario, as a model for what might be done for any other place of similar size and population in Ontario, Quebec, New Brunswick or Nova Scotia.²

The reports in the Ontario County Series have less detailed description and analysis than the study of Wellington County and more tabulations of data compiled out of the CANIND71 database. The reports follow a similar format. First, features of the CANIND71 database, especially its geographical organization and industrial classification, are explained so that readers can understand tables for particular counties. Each county is defined and factors in its history, location and resources that influenced the amount and character of industry by 1870-1 are noted. Then the structure and characteristics of industry in that county are summarized under the headings of location and distribution, industry types, size structure of industrial units, use of water and steam power, workplace types, and leading firms. The appendices present aggregate data grouped by geographical location, industry classifications and specific industry types. Summary data for individual establishments are then listed for the whole county, alphabetically by the proprietor's name, with additional lists for establishments in each city, town or village.

¹ T.C. Keefer, Philosophy of Railroads (1850), edited with an introduction by H.V. Nelles (Toronto: University of Toronto Press, 1972), p. 9.

² Elizabeth Bloomfield and G.T. Bloomfield, The Hum of Industry: Millers, Manufacturers and Artisans of Wellington County CANIND71 Research Report 9 (Guelph: University of Guelph, Department of Geography, 1989).

CANADIAN INDUSTRY IN 1871: ONTARIO COUNTY SERIES

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- 0-88955-271-1 Perth County Industries, 1871: Index to Manuscript Census (#24 in series)
- 0-88955-272-X Peterborough County Industries, 1871: Index to Manuscript Census (#25 in series)
- 0-88955-273-8 Prescott & Russell County Industries, 1871: Index to Manuscript Census
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- 0-88955-274-6 Prince Edward County Industries, 1871: Index to Manuscript Census
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- 0-88955-276-2 Simcoe County Industries, 1871: Index to Manuscript Census (#29 in series)
- 0-88955-277-0 Stormont, Dundas & Glengarry County Industries, 1871: Index to Manuscript
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- 0-88955-279-7 Waterloo County Industries, 1871: Index to Manuscript Census (#32 in series)
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- 0-88955-281-9 Wentworth County Industries, 1871: Index to Manuscript Census (#34 in series)
- 0-88955-282-7 York County Industries, 1871: Index to Manuscript Census (#35 in series)
- 0-88955-283-5 Northern Districts Industries, 1871: Index to Manuscript Census (#36 in series)

INTRODUCTION TO THE CANIND71 DATABASE

The CANIND71 database is a machine-readable version of the original manuscript information for more than 45,000 industrial establishments counted in the first Census of Canada in 1871. This new source provides a wealth of information for the four provinces enumerated in 1871 -- New Brunswick, Nova Scotia, Ontario and Quebec. The 1871 census was the first to be taken on a consistent basis for the four provinces. Although similar information was collected in the Canadian censuses of 1881, 1891, 1901 and 1911, the manuscript schedules for industry have not survived. The 1871 census manuscripts are thus the only systematic source for industrial activity that survives in such detail from the nineteenth century. Moreover, the 1871 schedules contain a great deal of information that was never published at the time.

In using the CANIND71 data, we should understand the definitions and procedures used by the 1871 census enumerators:³

- * Industrial businesses found by the census enumerators as they made their rounds in early April 1871 were included, and details were recorded of their operations during the preceding twelve months.

- * An industrial establishment was defined as "a place where one or several people are employed in manufacturing, altering, making up or changing from one shape into another, materials for sale, use or consumption, quite irrespectively of the amount of capital employed or of the products turned out" (p. 138). No minimum value of output was set, in contrast to the United States censuses in the same period, for which only establishments with at least \$500 worth were included.

- * All repairs, mending or custom work were understood to be industrial products. Thus the definition of industrial activity was considerably broader than it would be in the twentieth century.

- * Numbers of workers or "employés" were defined to be the average number of persons actually working in the industrial establishment during the 12-month reporting period, and could consist entirely of members of the proprietor's family. The industrial workforce was subdivided by age and gender into men, women, boys (males under 16 years) and girls (females under 16 years), but the amount of wages paid to each age-gender group of worker was not separately stated.

- * Industrial establishments were recorded in the geographical units -- District, Sub-District or Division -- in which they were found "and nowhere else. The principle is essential in every case. The production is attached to the locality" (p. 139).

- * In reporting custom work such as tailoring or work done on toll such as that of some grist mills or carding mills, enumerators were told to state the real value of raw materials, even if these amounts did not pass through the accounts of the proprietor.

³ "Manual Containing the Census Act and Instructions to Officers Employed in Taking of the First Census of Canada, 1871," Canada Sessional Papers No. 64 (1871). Quotations are from this source.

* Though enumerators could specify the types, quantities and values of individual raw materials and products for each establishment, it was foreseen that in most cases only the aggregate dollar values or raw materials and products would be stated.

* Values of fixed capital and floating capital invested in the industrial business were distinguished rather than merged, and the number of working months was specified.

Only a very limited amount of the information collected in Schedule 6 of the 1871 census was published in the official census volumes of the 1870s.⁴ The statistical tables published at the time used various industrial types that were defined pragmatically rather than systematically, and then listed in alphabetical order. For each industry type, whether as specialized as whip making or as ubiquitous as blacksmithing, figures were published for numbers of establishments, hands employed, yearly wages, value of raw materials and value of products in each of 206 Census Districts.

No industrial data at all were published for smaller areal units such as the Census Sub-Districts, either as summaries of total industrial activity or for specific types of industry. Thus the only 1871 industrial information published for urban centres was for the six cities, the boundaries of which exactly coincided with those of one or more Census Districts. These were Montreal, Toronto, Hamilton, Ottawa, London and Kingston. Some information collected by the enumerators was never compiled into published tables, notably for types and horse-power units of inanimate power, months of operation during the reporting period, and "floating" capital distinguished from "fixed" capital. The published totals also understated the real extent and value of industrial activity as these can now be reconstituted from the manuscript census schedules.⁵

Database Variables

The CANIND71 database has made machine-readable information about all the industrial firms counted in Canada's first national census. For each establishment, there are up to 125 variables. The firms were located in 206 Census Districts and over 1600 Census Sub-Districts in Ontario, Quebec, New Brunswick and Nova Scotia. All details recorded by the enumerators on the manuscript census schedules have been included as basic variables in the CANIND71 database. These are: name of proprietor, kind of industrial business, geographical location, use of non-manual forms of power, numbers of workers (distinguished into men, women, boys and girls), number of working months in the year, and the dollar amounts of fixed and floating capital invested, wages, raw materials and products, as well as kinds, quantities, units of measurement and values of individual raw materials and products, and additional remarks or comments.

In addition to the information transcribed from the census manuscripts, the CANIND71 database contains several variables derived by calculation or inference from the basic variables. These include the total values of raw materials or of products

⁴ Census of Canada 1871, volume III, Tables 28-55.

⁵ For a more detailed discussion of the 1871 Census procedures and a comparison of the published and manuscript data for industry in 1871, see Creating CANIND71: Procedures for Making the 1871 Census Machine-Readable (Research Report 4, 1989).

(when only details for component products or materials had been stated on the manuscript schedules), the value added (gross value of output less costs of raw materials when both these figures were reported), the total number of employees, and the average monthly wage per employee.

Geographical Organization

The original descriptions of geographical areas defined for the 1871 Census were researched to ensure that the codes and place names were entered accurately and consistently into the database. For ease in returning to the original schedules, we adopted the same code letters and numbers that were used in 1871 to describe the Census Districts, Census Sub-Districts and Census Enumerators' Divisions. The 206 Census Districts were intended to correspond with the Electoral Districts defined under the British North America Act 1867.⁶ Census Districts were divided into 1,701 Census Sub-Districts, which were intended to correspond with Municipal or other recognized divisions -- towns, villages, townships or city wards in Ontario, for example. The Census Sub-Districts were subdivided into nearly 3,000 Census Enumerators' Divisions, but these were defined for convenience of census-taking rather than to coincide with any other system of defining areas and no maps or written descriptions of these units have survived.⁷

Details of Census District name (with variable name CDISTRIC) and number (CDID), Census Sub-District name (CSD) and Census Enumerator's Division (CED) were coded for each manuscript record as it was entered into the CANIND71 database. Usually this information was written by the census enumerators on the manuscript schedules. But we had to standardize the names and codes for computer processing. We numbered the Census Districts in the same sequence from 001: Essex in southwest Ontario to 206: Richmond, Nova Scotia. Census district numbers in Ontario were prefaced with the letter O. We also adopted the same code letters and numbers that were used to describe the smaller Census Sub-Districts and Census Enumerators' Divisions in 1871. Municipal status was abbreviated as V-Village, T-Town (or Ville), C-City and Tp-Township. In the case of CSDs with the same principal name, they are distinguished by the directional abbreviations following the place name, such as N for North or Nord, S for South or Sud, E for East or Est, W for West.

Industrial Classification

The census enumerators used natural language to describe the kinds of establishment and industrial raw materials and products they encountered.⁸ In creating the CANIND71 database, we entered the enumerators' words into the computer record, but we also assigned standardized codes to each record to denote industry types and major groups more precisely and consistently. These codes are vital for analysis of the data.

⁶ Statutes of Canada, 33 Vict. 1870, Cap. 21, s. 4.

⁷ See G.T. Bloomfield, Boundaries of Canadian Census Units in 1871 (CANIND71 Research Report 10, 1990).

⁸ See Glossary of Industrial Language (CANIND71 Research Report 5, 1989) and French-English Dictionary of Industrial Language (CANIND71 Research Report 6, 1989).

Each record in the CANIND71 database has been assigned a code according to the 1970 Standard Industrial Classification Manual of the Canada Dominion Bureau of Statistics.⁹ Understandably, there were some problems in applying a 1970 classification to the conditions of a century earlier. Changes in technology have eliminated some industry types that were common in 1871. The more rudimentary level of economic and business organization in 1871 meant that many enterprises combined industrial activities that would typically be separated in specialized businesses by 1970. Repair of all kinds of goods and equipment was more integrally associated with manufacture in 1871.

The appropriate SIC code for each record was determined by study of both the stated kind of establishment and the actual products and raw materials reported in each case. Wherever possible, we chose the SIC code that best matched the actual outputs of the business as reported for the year ending March 31, 1871. The "kind of establishment" information alone could be quite misleading, as this term was sometimes an occupational label that did not really describe the actual products. For example, a business might be described very generally as a "foundry", which would rate a code of "294" only if its products were primarily iron castings. More typically, the products of so-called foundries in 1871 were fabricated metal products such as stoves (307-S) or general machinery (315) or agricultural implements (311). In another example, one who was by trade a blacksmith and so recorded in the "kind of establishment" column may have had opportunities to make all kinds of metal goods, often including carriages and wagons. If he made definite numbers of carriages or other items of transportation equipment, his business would be assigned the appropriate and more specific SIC code of "329" rather than "896" which would be assigned for a blacksmith engaged only in "country work and repairs".

We adapted the 1970 system to the 1871 context in two main ways. First, suffixes of hyphen and capital letter could be added to the basic 3-digit code to give greater specificity, a brewery (109-B) being distinguished from a distillery (109-D) for example. Second, an establishment that combined two or more products or services was given a compound SIC code, consisting of the two most important linked by a slash (/), so that a flour mill-cum-distillery is represented as "105/109-D".

These elaborations of the basic classification system resulted in a total list of over 700 specific codes that were used to describe the 45,070 firms in the four provinces in 1871. A few of these codes were shared by large numbers of establishments. Thus 5,254 blacksmiths were assigned the SIC code of "896", 5,088 saw mills had the basic code of "251", and 4,189 shoemakers were coded "174". Some 2,830 handloom weavers were given the code "182-W", 2,527 carriage and wagon makers were coded "329", and 2,098 flour mills share the code "105". Basic SIC codes assigned to at least 50 industrial establishments throughout Canada are listed in Table 1. At the other extreme, some significant enterprises had codes that were unique for Canada.

⁹ For a more detailed discussion of our use of SIC codes, see G.T. Bloomfield, Standard Industrial Classifications Applied to Historical Data (CANIND71 Research Report 7, 1989). The CANIND71 classification is based on Dominion Bureau of Statistics, Standard Industrial Classification Manual (Ottawa, 1970); for French-language equivalents we consulted Statistique Canada, Classification type des industries (Ottawa, 1990).

Table 1
STANDARD INDUSTRIAL CLASSIFICATION (1970) ADAPTED FOR 1871:
 short list of codes with at least 50 occurrences in CANIND71 database

101-P	Pork Curing/Packing	Salaison de porc
102	Fish Curing	Salaison de poisson
104	Cheese Factories	Fromageries
105	Flour/Grist Mill	Farine, Moulin à
105-O	Oatmeal Mill	Avoine, Moulin d'
107	Bakeries	Boulangeries
108-C	Confectionery	Confiserie
109-B	Brewery	Brasserie
109-S	Aerated Water	Eaux gazeuses
153	Tobacco Working	Tabac, Manufacture d
172	Tanneries	Tanneries
174	Boots/Shoes	Bottes/Souliers
179-S	Saddle/Harness Making	Selles]
182	Woolen Cloth Factories	Drap, Fabriques de
182-W	Weaver	Tisserand
189-W	Carding/Fulling Mills	Carder/fouler, Moulins à
239-K	Stockings/Mittens/Hand Knitter	Bas/Mitaines/Tricoteur
242	Clothing	Habillements
243	Tailors/Clothiers	Habillements pour hommes
246	Furrier/Hatter	Pelleterie/Chapellerie
249-M	Milliner	Modiste
251	Saw Mill	Moulin à scie
251-S	Shingle Making	Bardeaux, Confection de
254	Sashes/Doors/Blinds	Portes/Fenêtres
256	Basket Making	Vanneries
259	Wood Products, Misc	Produits de bois, divers
259-C	Cooperage	Tonnellerie
259-W	Wood Turning Establishments	Tours à bois
261	Cabinets/Furniture	Meublerie
286	Printing office	Imprimerie
287-B	Book Binding	Reliure
289	Printing/Publishing incl newspapers	Imprimerie/Publication de
294	Foundry/Castings	Fonderie/Fonte
304-T	Tinsmith	Ferblantier
306	Agricultural Hand Tools	Outils agricoles manuels
306-T	Axes	Haches
307-S	Stoves	Poêles
309	Metal Fabricating, Misc	Fabrication de métaux
311	Agricultural Implements	Instruments aratoires
315	Machinery, Misc	Machinerie/Équipement
315-H	Spinning Wheels	Rouets
315-P	Pumps	Pompes
327	Ship Yards	Navires, Construction de
327-M	Ship Material	Appareux de navire
328	Boat Building	Chaloupes, Construction
329	Carriage Making	Carrosserie
329-P	Wheels (* and other parts)	Roues
351-B	Brick/Tile Making	Briqueterie/Tuilerie
351-P	Pottery	Poterie
353	Stone/Marble Establishments	Marbrerie
358-L	Lime Kilns	Fours à chaux
365	Oil Refineries	Épuration de l'huile
374	Drugs	Drogues
376	Soap/Candle Making	Savonneries/Chandelleries
378-P	Pot/Pearl Asheries	Potasseries
392	Jeweler/Watchmaker	Bijoutier/Horloger
421-C	Carpenter/Joiner (buildings)	Charpentier (bâtiments)
421-D	Painter/Glazier	Peintre en bâtiments
893	Photographic galleries	Photographies
896	Blacksmithing	Forges

The SIC codes were generalized into the 26 Major Industry Groups (or SECs) that were also coded for each record (Table 2). This table also reflects the inclusion by the 1871 census enumerators of a wider range of industrial activities and processes than would be defined as manufacturing industry today. Eighty-six per cent of the establishments are classified in the Major Group 5 for Manufacturing Industry, with SIC codes between 101 and 399, accounting for 95 per cent of the total value of industrial output in 1871.

Table 2
**STANDARD INDUSTRIAL CLASSIFICATION:
MAJOR GROUPS AND SIC CODES**

Major Group SEC	SIC codes
Division 1 Agricultural Services	021-029
Division 2 Forestry	031-039
Division 3 Fishing	041-049
Division 4 Mines, Salt Wells etc	051-099
Division 5 Manufacturing Industries	
5.01 Food and Beverages	101-109
5.02 Tobacco Products	151-159
5.04 Leather Industries	171-179
5.05 Textile Industries	181-189
5.06 Knitting Mills	231-239
5.07 Clothing Industries	241-249
5.08 Wood Industries	251-259
5.09 Furniture Industries	261-269
5.10 Paper Industries	271-279
5.11 Printing and Publishing	281-289
5.12 Primary Metal Industries	291-299
5.13 Metal Fabricating	301-309
5.14 Machinery Industries	311-319
5.15 Transportation Equipment	321-329
5.17 Non-metallic Minerals	351-359
5.18 Petroleum & Coal Products	361-369
5.19 Chemical Industries	371-379
5.20 Miscellaneous Manufactg	391-399
Division 6 Construction Industry	401-499
Division 7 Gas and Water Utilities	572-579
Division 8 Trade (incl repair)	601-699
Division 10 Personal/business services	861-899

Using the SIC and geographical codes, data for individual establishments can be aggregated in all sorts of ways. In the sample records and tables presented in this report, we use the same variable names as in the CANIND71 database. They are explained in Table 3.

Table 3
VARIABLE NAMES IN CANIND71 DATABASE

Abbreviated code names for variables in the CANIND71 database are used in various tables in this report. A brief explanation of each code name follows:

AVWAGE:	Average monthly wage per worker in a firm, place or type of industry.
CDID:	Census district number used in 1871 census.
CDISTRIC:	Census district name used in 1871 census.
CED:	Census enumerator's division, a small part of a census district.
COMMENTS:	Additional remarks or comments for a firm entered in manuscript schedule.
EMPBOY:	Boys (males under 16 years) employed in industrial activity.
EMPGIRL:	Girls employed (females under 16 years) in industrial activity.
EMPMEN:	Men (males over 16 years) employed in industrial activity.
EMPWOM:	Women (females over 16 years) employed in industrial activity.
FIXCAP:	Value of fixed capital reported by proprietors.
FLOCAP:	Value of floating or working capital reported by proprietors.
FORCE:	Units (in "horse power" equivalents) of non-manual power reported by proprietors.
MONTH:	Number of working months in year.
OBSERV:	Observation, unit or record in a database; in the case of CANIND71 means individual industrial establishment.
PROD1:	Named type of product, first to Nth, as numbered.
PROPRIOR:	Name of proprietor as stated in census schedules.
PQUANT1:	Quantity of named product, first to Nth, as numbered.
PUNIT1:	Unit of measurement of named product, first to Nth, as numbered.
PVALUE1:	Value of named product, first to Nth, as numbered.
RAWMAT1:	Named type of raw material, first to Nth, as numbered.
RQUANT1:	Quantity of named raw material, first to Nth, as numbered.
RUNIT1:	Unit of measurement of named raw material, first to Nth, as numbered.
RVALUE1:	Value of named raw material, first to Nth, as numbered.
SEC:	Major industry group, derived from combinations of SIC codes.
SIC:	Standard Industrial Classification.
SUMPROC:	Value of industrial production (\$).
SUMRAWC:	Value of raw materials used in industry (\$).
TOTEMP:	Total number of employees, the sum of EMPMEN, EMPWOM, EMPBOY and EMPGIRL.
TYPEEST:	Type of establishment as stated by enumerator in census schedules.
TYPEPOW:	Type of power reported: steam, water, horse, W/S (water/steam).
VADD:	Value added in manufacturing (\$) = production \$ - raw materials \$.
WAGES:	Wages paid to industrial workers (\$).

ACKNOWLEDGEMENTS

Between 1982 and 1990, the CANIND71 Project based in the Department of Geography of the University of Guelph, computerized the full data for some 45,000 industrial establishments that were enumerated in Canada's first national census in 1871. We appreciate the shelter and support provided to the project by the Department of Geography. Creation and documentation of the CANIND71 database were substantially assisted by several grants from the Social Sciences and Humanities Research Council of Canada between 1985 and 1989. The most substantial of these were Grants 482-87-0010 and 482-88-0010 to Elizabeth Bloomfield as principal investigator. In a new phase of the project, computer method, led by Gerald Bloomfield and supported by SSHRCC funds, computer methods of mapping the historical data are being developed.

The interest and support of all who have assisted with this project are gratefully acknowledged. Janine Grant, Barbara Sibley, Jane Turner, Jane Darch and Stephen Bellinger worked for the project for significant periods, and the quality of the final database owes much to their careful and thorough work. Peter McCaskell, first as programmer-analyst in the Department of Geography and then from the University's Computing Services, played an essential role in database management and programming through all phases of the project. Mario Finoro, chief technician of the Department of Geography, has assisted in the acquisition, setting up and maintenance of the equipment. The computer maps in this series are the work of Larry Laliberté, while the graphs of industrial structure were produced in final form by Marie Puddister.

Elizabeth and Gerald Bloomfield

FRONTENAC COUNTY INDUSTRIES, 1871

The economic landscape of Frontenac County in 1871 combined several zones of development. Kingston, the fortress port founded in the eighteenth century, was located strategically at the outlet of Lake Ontario into the St Lawrence River. Nearly one in four of the county's total population of just over 50,000 lived in the city of Kingston; 2,500 more were counted in the unusual urban centres of Portsmouth (with the Penitentiary) and Garden Island. Neither Kingston nor Frontenac County was remarkable for its industrial employment or output, when compared with other Ontario cities and counties. Kingston's economic status in 1871 also reflected its "want of a populous back country" (in Robert Gourlay's phrase). The line of the Pre-Cambrian Shield most nearly approaches the St Lawrence River in Frontenac County, severely constraining agricultural production and rural settlement. South of this line, the rural population densities of Pittsburgh and Kingston Townships and Wolfe Island, averaging 50 per square mile in 1871, were similar to those of maturely developed counties such as Middlesex, Oxford and Brant. But, as more than per cent of the county surface consisted of Shield, the overall rural population density was only 15.5 per square mile, with Peterborough County the lowest in southern Ontario.

Frontenac County (including Kingston) was less industrialized than most other parts of the province, the mean value of industrial production per capita (\$51.83) being well under the mean for Ontario (\$74.00). However, the average number of employees per industrial establishment was 6.6 in Frontenac compared with 4.4 in Ontario as a whole, and the mean value of output per establishment was a little higher -- \$6,321. compared with \$5,516.¹⁰

¹⁰ A full bibliography of the historical development of industry in Kingston and Frontenac County cannot be given here, but items relevant to the period are:

"The Canadian Locomotive Co. Ltd: history of the works at Kingston," Queen's Quarterly 10 (1902/03): 455-463.

Canadian Locomotive Co. Ltd. Centenary 1850-1950 (Kingston: The Company, 1950).

Illustrated Historical Atlas of Frontenac, Lennox and Addington Counties (reprinted Belleville: Mika, 1983).

Osborne, Brian and Donald Swainson. Kingston: Building on the Past (Westport: Butternut Press, 1988).

Patterson, Neil A., ed. History of the Township of Kingston (Kingston: Corporation of the Township of Kingston, 1985).

Patterson, Neil A. "Why Kingston did not become a major industrial centre," Historic Kingston 34 (1986): 103-117.

Rollaston, Bryan. County of a Thousand Lakes: History of the County of Frontenac (Kingston: Frontenac County Council, 1982).

Swainson, Donald. "Chronicling Kingston: an interpretation," Ontario History 74,4 (1983): 302-333.

Table 4
FRONTENAC COUNTY: CENSUS DISTRICTS AND SUB-DISTRICTS, 1871

			sq mls	pop	est	empl
** CDID O064 ADDINGTON (part)						
O064	F	BARRIE TP	117.97	316	2	5
O064	G	KENNEBEC	108.00	802	5	5
O064	H	HINCHINBROOKE	117.63	997	5	15
O064	I	PORTLAND	89.06	2718	38	93
O064	J	LOUGHBOROUGH	86.41	2325	35	65
O064	K	BEDFORD	133.92	1839	14	113
O064	L	OSO	76.99	492	1	6
O064	M	OLDEN	111.25	560	10	20
O064	N	PALMERSTON/...	192.27	546	0	0
O064	O	CLARENDON/...	189.83	408	3	3
** Subtotal **			2057.23	21312	269	733
** CDID O065 FRONTENAC						
O065	A	KINGSTON TP	87.12	4101	38	100
O065	B	PORTSMOUTH V/PEN	0.47	1702	15	549
O065	C	GARDEN ISLAND	0.13	762	2	195
O065	D	WOLFE ISLAND	47.81	2737	19	33
O065	E	PITTSBURGH/...	86.50	4126	29	79
O065	F	STORRINGTON	98.44	2882	33	102
** Subtotal **			320.47	16310	136	1058
** CDID O066 CITY OF KINGSTON						
O066	A	VICTORIA WARD	0.54	1723	2	10
O066	B	RIDEAU WARD	0.65	2066	9	54
O066	C	FRONTENAC WARD	0.57	2514	23	113
O066	D	ST LAWRENCE WARD	0.04	862	50	337
O066	E	ONTARIO WARD	0.07	1262	20	133
O066	F	SYDENHAM WARD	0.18	1944	23	425
O066	G	CATARAQUI WARD	0.52	2036	34	258
** Subtotal **			2.57	12407	161	1330

Swainson, Donald. Garden Island: A Shipping Empire (Kingston: Maritime Museum of the Great Lakes, 1984).

Tulchinsky, Gerald J.J., ed. To Preserve and Defend: Essays on Kingston in the Nineteenth Century (Montreal: McGill-Queen's, 1976).

The information contained in this report about proprietors of industrial establishments in 1871 may be related to the valuable index of all household heads provided in Index to the 1871 Census of Ontario: Kingston-Frontenac-Lennox-Addington (Toronto: Ontario Genealogical Society, 1988).

CENSUS AND MUNICIPAL UNITS

Census Districts were defined to match federal electoral districts rather than counties in 1871. However, the component Census Sub-Districts usually matched the smaller municipal units of townships, towns, villages or city wards. Frontenac County was divided among the three Census Districts of Addington (part), Frontenac, and the City of Kingston (with its seven wards).

The Census Sub-Districts of Frontenac County are shown in Figure 1 and their basic statistics of area (sq mls), population (pop), industrial establishments (est) and industrial employees (empl) are set out in Table 4. Several CSDs, especially in the less developed interior were defined to include more than one township. Examples in Frontenac County are Clarendon CSD which included Miller Township, and Palmerston CSD which also included North Canonto and South Canonto. Pittsburgh CSD was defined to include Howe Island as well.

While most industrial activity was located in incorporated urban centres, some was also dispersed in smaller central places scattered through the rural areas. The census manuscript schedules do not specify location in such smaller, unincorporated places, but it can be useful when comparing the census data with information from other sources to know which hamlets and villages were included in particular Census Sub-Districts. A summary is presented in Table 5.¹¹

LOCATION AND DISTRIBUTION

Kingston and Portsmouth (with the Penitentiary) accounted for more than three of every four of the county's industrial workers and almost 75 per cent its gross value of industrial production. Of Kingston's total population of 12,407 in 1871, 1,330 or a just over one in ten was employed in industrial mills, factories or workshops. Higher proportions were recorded in the smaller centres: nearly one in three of the population in Portsmouth and the Penitentiary, and one in four in Garden Island. Among the rural townships, Storrington had the highest statistics on industrial activity.

INDUSTRY TYPES

Using the Standard Industrial Classification (SIC) code of each record and the more generalized Major Industry Group (SEC), it is possible to describe and compare the industrial structures of places from whole provinces to local townships and villages. In coding all the industrial establishments of Frontenac County, only 71 different basic SIC codes (including suffixes, but trimming compounds) are used. This compares with 101 different basic codes in Wentworth County, 172 in all of Ontario, and 196 in all of Canada.

¹¹ For a more detailed discussion of the location of smaller villages and hamlets in relation to the 1871 Census units, see G.T. Bloomfield, Ontario Central Places in 1871: A Gazetteer Compiled from Contemporary Sources (CANIND71 Research Report 13, 1990).

Table 5: FRONTENAC COUNTY: CENTRAL PLACES, 1871

<u>Place</u>	<u>Population</u>	<u>Township</u>	<u>CSD</u>	<u>Sources</u>	<u>Lat.</u>	<u>Long.</u>
ANDERSON MILLS	25	Bedford	64K	L	44 39	76 39
ARDEN	100	Kennebec	64G	D L P	44 43	76 57
<i>formerly Clear Valley</i>						
ARDOCH	50	Clarendon/...	64O	L P	44 56	76 55
BALLANTYNE'S	180	Pittsburgh/...	65E	L	44 18	76 22
<i>also known as Ballantyne's Station (C); formerly Pittsburgh (C); later Ballantyne Crossing</i>						
BATTERSEA	350	Storrington	65F	D L P	44 26	76 23
BELL ROCK	200	Portland	64I	L P	44 28	76 46
<i>also spelled Bellrock</i>						
BIRMINGHAM	60	Pittsburgh/...	65E	L P	44 22	76 20
<i>later Joyceville</i>						
BREWER'S MILLS	150	Pittsburgh/...	65E	D L P	44 25	76 18
BUCKSHOT MILLS	35	Clarendon/...	64O	L	44 56	76 54
<i>also known as Buckshot; later Plevna (C)</i>						
BUTTERMILK FALLS	.	Bedford	64K	D	44 36	76 24
<i>later Bedford Mills</i>						
CATARAQUI	300	Kingston Tp	65A	D L P	44 16	76 32
<i>also known as Waterloo</i>						
COLLIN'S BAY	130	Kingston Tp	65A	D L P	44 15	76 36
DAVIS' CORNERS	30	Oso	64L	L	44 50	76 37
<i>later Zealand</i>						
DEERDOCK	25	Oso	64L	L P	44 49	76 43
DENISTON	100	Hinchinbrooke	64H	L P	44 31	76 41
<i>also known as Piccadilly, Iron Ore Junction; later Godfrey</i>						
ELGINBURG	150	Kingston Tp	65A	D L P	44 19	76 32
<i>formerly Scott's Corners, Elgin</i>						
ELPHIN	30	Palmerston/...	64N	L	44 55	76 37
FERMOY	30	Bedford	64K	L P	44 38	76 31
GARDEN ISLAND	762	Garden Island	65C	L M	44 12	76 28
GEMLEY	40	Miller	64O	L P	45 00	77 00
<i>also known as Playfair's Corners</i>						
GLENBURNIE	300	Kingston Tp	65A	L P	44 19	76 29
GLENDOWER	50	Bedford	64K	L P	44 34	76 38
GLENVALE	150	Kingston Tp	65A	L P	44 19	76 37
<i>formerly Ballynahinch</i>						
HARDINGE	40	Barrie Tp	64F	L P	44 54	77 13
HARROWSMITH	300	Portland	64I	D L P	44 24	76 40
<i>formerly Spike's Corners</i>						
HARTINGTON	40	Portland	64I	D L P	44 26	76 40

HOWE ISLAND	100	Pittsburgh/...	65E	L P	44 16	76 17
<i>also known as Sir John's Island (L)</i>						
INVERARY	100	Storrington	65F	D L P	44 23	76 28
<i>formerly Storrington</i>						
KINGSTON	12407	Kingston City	66	D L B	44 14	76 30
KINGSTON MILLS	150	Pittsburgh/...	65E	D L P	44 17	76 27
<i>on boundary with Kingston Tp</i>						
LOUGHBORO	.	Loughborough	64J	M	44 26	76 32
<i>also spelled Loughborough; post office for Sydenham</i>						
MILBURNE	50	Storrington	65F	D L	44 25	76 22
<i>later spelled Milburn</i>						
MOUNTAIN GROVE	20	Olden	64M	L P	44 44	76 51
MURVALE	40	Portland	64I	D L P	44 22	76 39
OMPAH	100	Palmerston/...	64N	L P	45 01	76 50
PARHAM	50	Hinchinbrooke	64H	D L P	44 39	76 43
PETWORTH	200	Portland	64I	D L P	44 25	76 46
<i>on boundary with Camden East Tp, Addington Co</i>						
PITTSFERRY	60	Pittsburgh/...	65E	L P	44 17	76 20
<i>also spelled Pitts Ferry</i>						
PORTSMOUTH	1702	Portsmouth V/Pen	65B	D L P	44 13	76 31
RAILTON	70	Loughborough	64J	L P	44 23	76 34
SHARPTON	100	Kingston Tp	65A	L P	44 19	76 40
SPAFFORDTON	25	Loughborough	64J	L P	44 24	76 31
STORRINGTON	.	Storrington	65F	D	44 26	76 21
<i>later Inverary</i>						
SUNBURY	100	Storrington	65F	L P	44 23	76 26
<i>formerly Spooner's Corners</i>						
SYDENHAM	450	Loughborough	64J	D L	44 25	76 36
<i>post office called Loughborough</i>						
VERONA	40	Portland	64I	L P	44 29	76 42
<i>formerly Buzztown (C)</i>						
WEST BROOK	100	Kingston Tp	65A	D L P	44 16	76 37
<i>later spelled Westbrook; formerly Slab City (C)</i>						
WILLETSHOLME	100	Pittsburgh/...	65E	L P	44 21	76 14
WILMUR	300	Loughborough	64J	L P	44 27	76 31
WOLFE ISLAND	500	Wolfe Island	65D	D L P	44 12	76 26
<i>also spelled Wolf Island</i>						

Note: Lat = Latitude; Long. = Longitude.

Three primary sources were used to generate this list of places for 1871:

R.G. Dun and Co.'s Mercantile Agency Reference Book (D);

Lovell's Canadian Dominion Directory for 1871 (L);

Canadian Almanac and Repository of Useful Knowledge 1871 (P for ordinary post office, M for post office that could issue money orders, B for post office with savings bank function.

When Frontenac County's industrial structure is compared with that of Ontario as a whole, we find that several sectors were significantly stronger in the county than generally in the province. Figure 2 has been designed to show these differences as clearly as possible, based on employment in major industry groups (SECs in the database) in Ontario, Frontenac County (excluding Kingston) and Kingston. Some of the differences in industrial structure reflect urban-rural contrasts. Textile mills (and other cloth production) was typically located in rural areas and small villages, while the making of clothing was concentrated in urban places. Construction activity was also more intensive in the larger towns and cities, while blacksmiths were more typical in the countryside than in the towns.

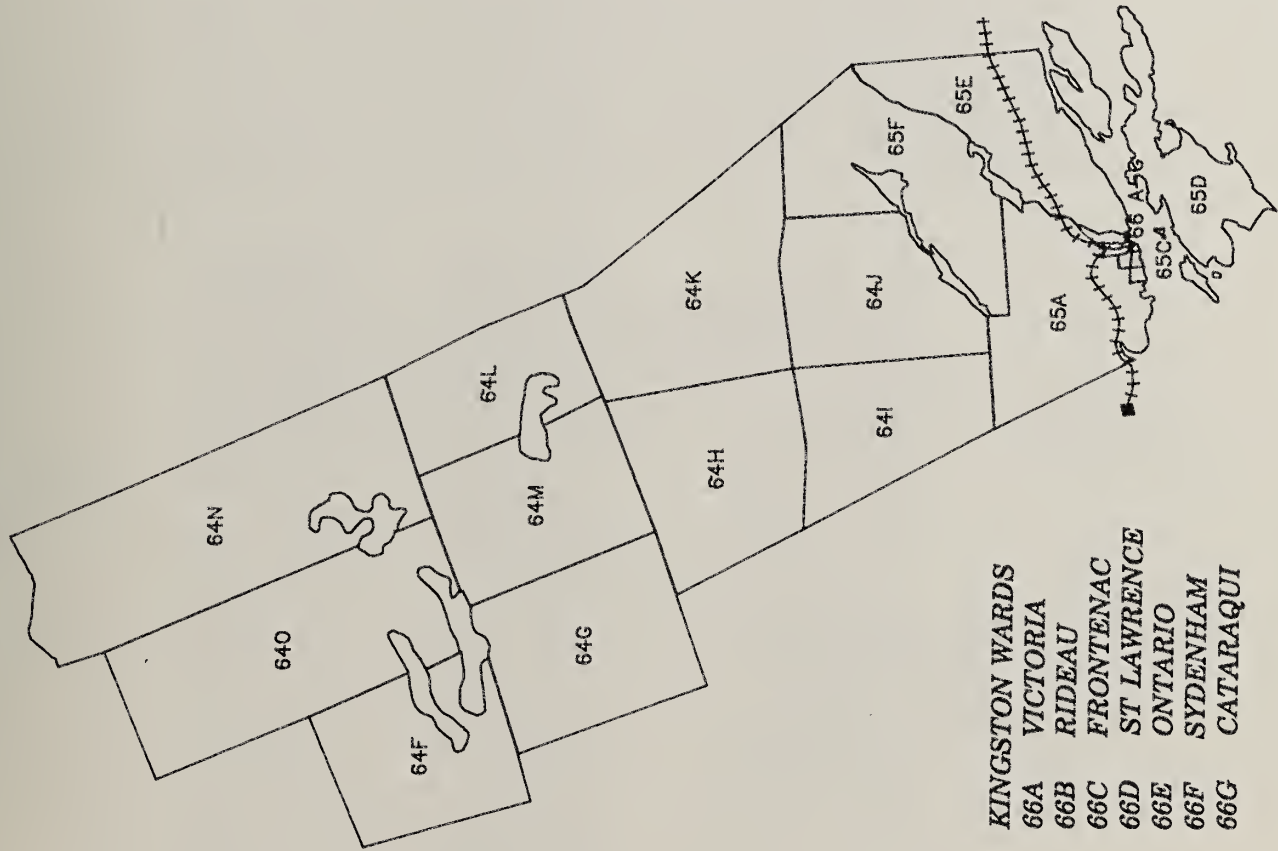
Frontenac's industrial structure (separated from that of Kingston) is similar to that of Ontario as a whole in the significance of water-powered saw mills. But the absence of a strong farm-based economy is reflected in the weakness of grain and textile mills. Several distinctive enterprises or institutions left their mark on the county's industrial structure. One was the rafting, lumbering and ship-building empire of D.D. Calvin and based at Garden Island, the entrepot between the Great Lakes and St Lawrence navigation systems. Here the square timber and staves were unloaded and built into rafts, an activity reflected in the size of the forestry services sector (the top segment of the bar for Frontenac County). The Kingston Penitentiary, located just west of the city, was also a significant industrial site, with ten distinct establishments recorded in 1871. The largest numbers of male prisoners worked for the footwear manufactory, in the stone masonry yard, the Provincial Hardware Manufacturing Company which made locks and hinges, or the cabinet manufactory. Men were also recorded in the Penitentiary's carpentry and paint, blacksmith, harness, tailor, and shoe repair shops. Several of these operations were apparently managed by contractors. Female prisoners were occupied in knitting socks, mittens and underwear and in sewing shirts and other prisoners' clothing. These special industrial activities explain the disproportionate strength of the leather-working, construction, and hosiery sectors in Frontenac County outside Kingston.

Kingston's industrial employment structure is notable for the strength of its clothing, printing and publishing, and metal-fabricating sectors, but especially for its transportation equipment and chemical industries. One enterprise, the Canadian Engine and Machinery Company was by far the largest in the whole county while smaller ship- and boat-building yards reflected the port and entrepot functions of the city. Kingston may be compared with other large towns and cities of Ontario as to their industrial status in 1871. In combining below-average industrial employment with a diversified industrial structure not dominated by any particular sector or enterprise, the city most resembled Belleville, Stratford, Cobourg and Lindsay among the middle-sized towns of Ontario. It differed from Toronto, Hamilton, St Catharines and Peterborough which all had above-average industrial activity and especially from Ottawa, Brantford, Guelph, Brockville, Galt, Oshawa, Ingersoll and Paris which were specialized in particular sectors as well as highly industrialized.¹²

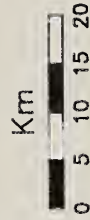
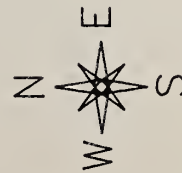
¹² For analysis of the urban concentration of industry and of differences between specific urban centres, see Elizabeth Bloomfield and G.T. Bloomfield, The Ontario Urban System at the Onset of the Industrial Era (CANIND71 Research Report 3, 1989).

FRONTENAC COUNTY WITH KINGSTON

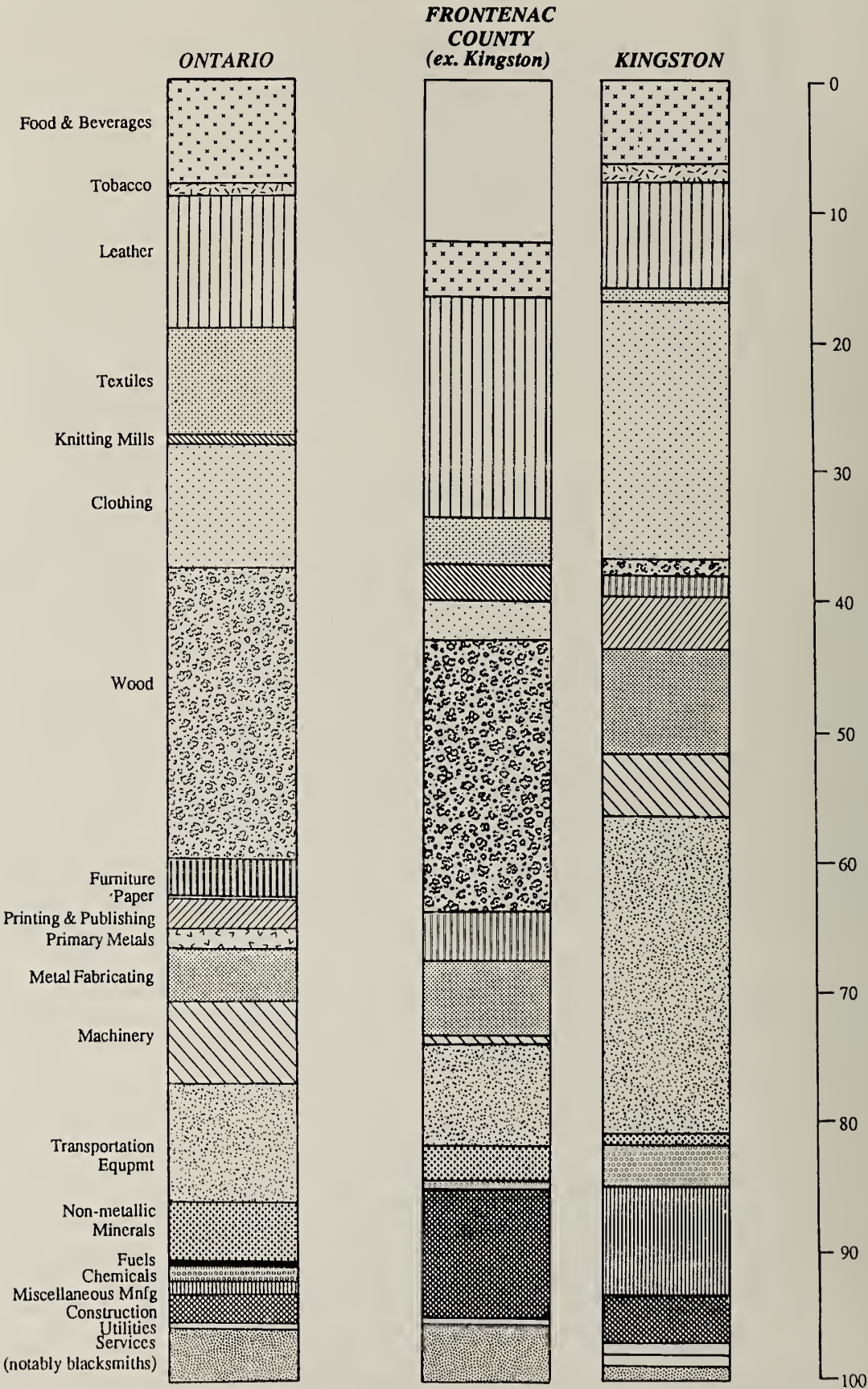
FRONTENAC
 64F BARRIE TP
 64G KENNEBEC
 64H HINCHINBROOKE
 64I PORTLAND
 64J LOUGHBOROUGH
 64K BEDFORD
 64L OSO
 64M OLDEN
 64N PALMERSTON/...
 64O CLARENDON/...
 65A KINGSTON TP
 65B PORTSMOUTH
 V/PEN
 65C GARDEN ISLAND
 65D WOLFE ISLAND
 65E PITTSBURGH/...
 65F STORRINGTON



KINGSTON WARDS
 66A VICTORIA
 66B RIDEAU
 66C FRONTENAC
 66D ST LAWRENCE
 66E ONTARIO
 66F SYDENHAM
 66G CATARAQUI



COMPARATIVE INDUSTRIAL STRUCTURES: Percentages Employed in Major Industry Groups (SECs)



SIZE OF ESTABLISHMENT

Most of Frontenac County's industrial establishments were small craftshops - blacksmiths, tinsmiths, bakers, saddlers, shoemakers, tailors, milliners, weavers and knitters, coopers, carpenters, carriage and wagon makers. The mean number of employees in each establishment in Frontenac was 6.6 (for Ontario as a whole it was 4.4). Nearly three of every four three workplaces in Frontenac County had five or fewer workers, a smaller percentage than the 87 per cent in Ontario generally. Middle-sized and especially large employers were more important in Frontenac than in Ontario as a whole (Table 6). Seven businesses in Frontenac County (including 3 in the city of Kingston as well as three Penitentiary shops and the Garden Island rafting business employed over 50 workers each. Though these large employers formed only a tiny proportion of the county's establishments, they accounted for between 27 and 30 per cent of the industrial workers, gross value of output and value added in manufacturing.

Table 6
6a. ONTARIO INDUSTRIAL ESTABLISHMENTS, 1871
BY FIRM SIZE OR NUMBERS OF EMPLOYEES PER FIRM

Firm size # employees	Establishments % total	Employment % total	Production % total	Value Added % total
<u>small</u>				
1	39.8	9.0	6.1	6.2
2 - 5	45.3	28.5	29.9	25.7
<u>medium</u>				
6 - 50	14.1	40.1	44.2	44.6
<u>large</u>				
50+	0.8	22.4	19.8	23.5
TOTALS	100.0	100.0	100.0	100.0

6b: FRONTENAC COUNTY INDUSTRIAL ESTABLISHMENTS, 1871
BY FIRM SIZE OR NUMBERS OF EMPLOYEES PER FIRM

Firm size # employees	Establishments % total	Employment % total	Production % total	Value Added % total
<u>small</u>				
1	27.3	4.1	2.7	3.3
2 - 5	46.6	19.6	23.6	21.3
<u>medium</u>				
6 - 50	24.4	48.0	44.0	48.2
<u>large</u>				
50+	1.7	28.3	29.7	27.2
TOTALS	100.0	100.0	100.0	100.0

Many industrial establishments had small values of production as well: nearly one in five of Frontenac County's units produced \$500 worth or less of industrial output. But such small establishments were less significant than in some other Ontario counties, as the proportion of such small businesses was over 26 per cent in Ontario as a whole. At the other extreme, the eight enterprises reporting at least \$50,000 worth of output formed only two per cent of all establishments in Frontenac County but accounted for 36 per cent of the total value of production. A summary of the 27 Frontenac enterprises that reported either at least 25 employees or at least \$25,000 value of output is presented in Table A-7 and the full manuscript details for most of the firms are reproduced as sample records in this report.

POWER TECHNOLOGY

About one in every four industrial firms in Frontenac County in April 1871 reported using water or steam power, slightly better than the share in Ontario generally. Such firms were disproportionately important in employment, investment and production. Water-and steam-powered enterprises employed about 37 per cent of the county's industrial workers, and reported 70 per cent of the value of fixed capital invested in industry and well over half the gross value of output.¹³ Waterwheels accounted for over 70 per cent of the total inanimate power capacity in the county. However, in Kingston and the smaller urban centres, steam engines provided all the inanimate power.

Firms reporting inanimate power are listed in Table A-5, by the number of horsepower units. Three sawmills and one grist mill reported waterwheels with at least 50 horsepower but only the Hamiltons' tannery in Storrington Township combined significant waterpower capacity with substantial value of output. Powered firms with the highest values of output more typically reported steam engines. Steam engines with capacities of under 40 horsepower were most important in urban establishments, in this county as well as generally in Ontario. Engines with under 25 hp provided 78 per cent of the inanimate power reported in Kingston and the other two urban places.

Various industry types are illustrated in the sample records on the following pages. Two enterprises, the Canadian Engine and Machinery Company of Kingston and Calvin and Beck of Garden Island, ranked among Canada's industrial leaders in 1871, calculated as those in the top one per cent in all four measures of number of employees, value of fixed capital investment, gross value of production and value added in manufacturing.¹⁴ Other fairly large businesses are included to show a range of

¹³ See G.T. Bloomfield, Water Wheels and Steam Engines: Powered Establishments of Ontario (CANIND71 Research Report 2, 1989).

¹⁴ See Elizabeth Bloomfield and G.T. Bloomfield, Patterns of Canadian Industry in 1871: An Overview Based on the First Census of Canada (CANIND71 Research Report 12, 1990). The top one per cent of industrial enterprises in 1871 were defined as those meeting all the following conditions: value of output of at least \$76,000, employment of at least 51 workers, fixed capital of at least \$28,500, and added value of at least \$28,500. For a more detailed study of leading industrial businesses in Ontario in 1871, defined according to slightly different criteria, see Industrial Leaders: The Largest Manufacturing Firms (CANIND71 Research Report 8, 1990).

CANIND71 SAMPLE RECORDS FOR LARGE ENTERPRISES

proprior: **CANADIAN ENGINE AND MACHINERY CO**typeest: **LOCOMOTIVE/RAILWAY CARS/ENGINE MACHINERY**

cdid: 0066	ced: F	cdistric: KINGSTON	csd: SYDENHAM WARD
sic: 326	sec: 5.15	month: 12	type: U
fixcap: 200000	flocap: 50000	typepow: STEAM	force: 20
empmen: 169	empwom:	empboy: 4	empgirl:
totemp: 173	wages: 75000	avwage: \$ 36.13 (worker/month)	
sumrawc: 200988	sumproc: 306000	vadd: 105012	
rawmat1: IRON	runit1:	rquant1: 3064160	rvalue1: 92610
rawmat2: STEEL	runit2:	rquant1: 234758	rvalue2: 21035
rawmat3: BRASS/COPPER	runit3:	rquant3: 95198	rvalue3: 21418
rawmat4: LUMBER ETC	runit4:	rquant4: 710000	rvalue4: 65925
prod1: LOCOMOTIVES	punit1:	pquant1:	pvalue1: 121000
prod2: CARS	punit2:	pquant1: 12	pvalue2: 185000

proprior: CALVIN & BRECK	typeest: RAFT BUILDING	refnum: 17512
cdid: 0065	ced: C	cdistric: FRONTENAC
sec: 2	sic: 031	month: 12
fixcap: 32000	flocap: .	typepow:
empmen: 140	empwom: .	empboy: 16
totemp: 156	wages: 40000	avwage: \$ 21.37 per worker/month
sumrawc: 22400	sumproc: 150000	vadd: 127600
rawmat1: TIMBER	runit1: CU FT	rquant1: 30000
prod1: RAFTS	punit1:	pquant1: 18
comments: Amount estimated being difficult to determine		

proprior: ROWLANDS, JOHN & HOFLER, FELIX	typeest: PIANO MANUFACTORY	refnum: 17728
cdid: 0066	ced: G	cdistric: KINGSTON
sec: 5.2	sic: 399-P	month: 12
fixcap: 5000	flocap: 10000	typepow: STEAM
empmen: 50	empwom: .	empboy: 4
totemp: 54	wages: 24000	avwage: \$ 37.04 per worker/month
sumrawc: 50000	sumproc: 56250	vadd: 6250
rawmat1: WOOD, ASSORTED	runit1: FT	rquant1: 250000
rawmat2: IRON WORK	runit2:	rquant2: .
prod1: PIANOS	punit1:	pquant1: 225
comments: TRADING UNDER NAME WEBER & CO		

proprior:	PROV HARDWARE MF CO			typeest:	HARDWARE MANUFACTORY		refnum:	17502	
cdid:	0065	ced:	B-2	cdistric:	FRONTENAC		csd:	PENITENTIARY	
sec:	5.13	sic:	309-S/306	month:	12		prop:		
fixcap:	8000	flocap:	15000	typepow:	STEAM		force:	25	
empmen:	75	empwom:	.	empboy:	.		empgirl:	.	
totemp:	75	wages:	20000	avwage:	\$ 22.22 per worker/month				
sumrawc:	18000			sumproc:	50000		vadd:	32000	
rawmat1:	IRON,PIG,OTHER/STEEL/BRASS/HOOPS/RODS/COPPER/COAL/LUMBER								
				runit1:		rquant1:	.	rvalue1:	18000
prod1:	LOCKS/LOCK FURNITURE			punit1:	DOZ	pquant1:	15000	pvalue1:	.
prod2:	HINGES,BUTT			punit2:		pquant2:	50000	pvalue2:	.
prod3:	CAST HARDWARE			punit3:		pquant3:	.	pvalue3:	.
comments:	PROVINCIAL HARDWARE MANUFACTURING COMPANY; WILLIAM C EVANS - CONTRACTOR AND PRESIDENT;								
additional raw material unable to be accommodated in space provided									

proprior: PENITENTIARY		typeest: BOOT/SHOE MF		refnum: 17504	
cdid: 0065	ced: B-2	cdistric: FRONTENAC	csd: PENITENTIARY		
sec: 5.04	sic: 174	month: 12	prop:		
fixcap: 50000	flocap: 25000	typepow:	force: .		
empmen: 125	empwom: .	empboy: .	empgirl: .		
totemp: 125	wages: 15000	avwage: \$ 10.00 per worker/month			
sumrawc: .		sumproc: 150000	vadd: .		
rawmatl: LEATHER,ASSORTED/FINDINGS,LEATHER					
		runitl:	rquantl: .	rvaluel: .	
prod1: BOOTS/SHOES		punitl: PR	pquantl: 100000	pvaluel: 150000	
comments: GEORGE OFFINS & CO - CONTRACTOR					

```

proprior: PENITENTIARY                                typeest: FEMALE DEPARTMENT
cdid: O065                                ced: B-2                                cdistric: FRONTENAC csd: PENITENTIARY
sic: 239-K/244                                sec: 5.06                                month: 12                                prop: F
fixcap:                                flocap:                                typepow:                                force:
empmen:                                empwom: 43                                empboy:                                empgirl: 2
totemp: 45                                wages: 2412                                auwage: $ 4.47 per worker/month
sumrawc: 1320                                sumproc: 3400 vadd: 2080
rawmat1: YARN,WOOL                                runit1: LB                                rquant1: 570                                rvalue1:
rawmat2: CLOTH,FLANNEL                                runit2: YD                                rquant2: 1324 rvalue2:
rawmat3: CLOTH, FACTORY COTTON,SHIRTING/TRIM
                                runit3: YD                                rquant3: 1000
prod1: SOCKS/MITTS punit1: PR                                pquant1: 1650                                pvalue1:
prod2: SHIRTS/DRAWERS                                pquant2: 899                                pvalue2:
prod3: CLOTHING,FEMALE PRISONER                                pquant3:                                pvalue3:
comments: MARY LEAHY - MATRON

```

CANIND71 SAMPLE RECORDS: FOOD AND LEATHER PROCESSING

proprior: GOING S & H & CO	typeest: GRIST/FLOUR MILL	refnum: 17515
cdid: 0065 ced: D-2	cdistric: FRONTENAC	csd: WOLFE ISLAND
sec: 5.01 sic: 105	month: 12	prop:
fixcap: 6000 flocap: 2500	typepow: STEAM	force: 30
empmen: 2 empwom: .	empboy: .	empgirl: .
totemp: 2 wages: 1000	avwage: \$ 41.67 per worker/month	
sumrawc: 60000	sumproc: 66000	vadd: 6000
rawmat1: GRAIN,WHRAT runit1: BU	rquant1: 60000	rvalue1: 60000
prod1: FLOUR punit1: CWT	pquant1: 26400	pvalue1: 66000
comments: GOING SHIRLEY & HENRY		

proprior: HAMILTON H & C	typeest: TANNERY	refnum: 17582
cdid: 0065 ced: F-2	cdistric: FRONTENAC	csd: STORRINGTON
sec: 5.04 sic: 172	month: 12	prop:
fixcap: 31000 flocap: 35000	typepow: WATER	force: 50
empmen: 22 empwom: .	empboy: .	empgirl: .
totemp: 22 wages: 7209	avwage: \$ 27.31 per worker/month	
sumrawc: 60000	sumproc: 108000	vadd: 48000
rawmat1: HIDES,FOREIGN runit1:	rquant1: 12000	rvalue1: 60000
prod1: LEATHER,SOLE punit1: LB	pquant1: 480000	pvalue1: 108000
comments: MILBURN TANNERY		

proprior: ROSS ELIZABETH	typeest: BAKERY	refnum: 17729
cdid: 0066 ced: G	cdistric: KINGSTON	csd: CATARAQUI
sec: 5.01 sic: 107	month: 12	prop: F
fixcap: 50 flocap: 100	typepow:	force: .
empmen: 3 empwom: .	empboy: .	empgirl: .
totemp: 3 wages: 884	avwage: \$ 24.56 per worker/month	
sumrawc: 4000	sumproc: 5500	vadd: 1500
rawmat1: FLOUR runit1: BBL	rquant1: 675	rvalue1: 4000
prod1: BREAD/BISCUITS punit1:	pquant1: .	pvalue1: 5500

proprior:	COX MARY		typeest:	WEAVING SHOP		refnum:	17448	
cdid:	0064	ced:	M	cdistric:	ADDINGTON	csd:	OLDEN	
sec:	5.05	sic:	182-W	month:	4	prop:	F	
fixcap:	20	flocap:	.	typepow:		force:	.	
empmen:	.	empwom:	2	empboy:	.	empgirl:	.	
totemp:	2	wages:	60	avwage:	\$ 7.50 per worker/month			
sumrawc:	147			sumproc:	300	vadd:	153	
rawmat1:	YARN,WOOL	runit1:	LB	rquant1:	250	rvalue1:	125	
rawmat2:	YARN,COTTON	runit2:	LB	rquant2:	50	rvalue2:	22	
prod1:	CLOTH,FLANNEL SHEET,FLANNEL/CLOTHING,MENS,WOMENS							
		punit1:	YD	pquant1:	500	pvalue1:	300	
comments:	HANDLOOM: ALL COUNTRY CUSTOM WORK							

pprior:	KINNEAR	ELIZABETH	typeest:	MILLINER	refnum:	17667	
cdid:	0066	ced:	D	cdistric:	KINGSTON	csd:	ST LAWRENCE
sec:	5.07	sic:	249-M	month:	12	prop:	F
fixcap:	300	flocap:	1000	typepow:		force:	.
empmen:	.	empwom:	10	empboy:	.	empgirl:	.
totemp:	10	wages:	800	avwage:	\$ 6.67 per worker/month		
sumrawc:	2500			sumproc:	4000	vadd:	1500
rawmat1:	CLOTH,SILK/RIBBON			rquant1:	.	rvalue1:	2500
prod1:	N/G						

proprior:	TWEADELL	MARY	typeest:	HAT/FUR MANUFACTORY	refnum:	17727	
cdid:	0066	ced:	G	cdistric:	KINGSTON	csd:	CATARAQUI
sec:	5.07	sic:	246	month:	6	prop:	F
fixcap:	100	flocap:	200	typepow:		force:	.
empmen:	2	empwom:	1	empboy:	.	empgirl:	.
totemp:	3	wages:	520	avwage:	\$ 28.89 per worker/month		
sumrawc:	200			sumproc:	750	vadd:	550
rawmatl:	CONKY/WOOL	runitl:		rquantl:	.	rvalue1:	200
prodl:	N/G						

CANIND71 SAMPLE RECORDS FOR METAL-FABRICATING AND CHEMICALS

proprior: CHOWN SARAH & SONS	typeest: TIN/IRON/COPPER MF	refnum: 17724
cdid: 0066 ced: G	cdistric: KINGSTON	csd: CATARAQUI
sec: 5.13 sic: 304-T	month: 12	prop: F
fixcap: 300 flocap: 500	typepow:	force: .
empmen: 4 empwom: .	empboy: .	empgirl: .
totemp: 4 wages: 800	avwage: \$ 16.67 per worker/month	
sumrawc: 1000	sumproc: 2500	vadd: 1500
rawmat1: TIN/IRON/COPPER runit1: LB	rquant1: 6000	rvalue1: 1000
prod1: TINWARE/COPPERWARE/IRONWARE		
punit1:	pquant1: .	pvalue1: 2500
proprior: ROBERTSON BENJAMIN	typeest: SOAP FACTORY	refnum: 17700
cdid: 0066 ced: F	cdistric: KINGSTON	csd: SYDENHAM
sec: 5.19 sic: 376	month: 12	prop:
fixcap: 5000 flocap: 12000	typepow: STEAM	force: 10
empmen: 9 empwom: .	empboy: 1	empgirl: .
totemp: 10 wages: 3200	avwage: \$ 26.67 per worker/month	
sumrawc: 50000	sumproc: 60000	vadd: 10000
rawmat1: RESIN/TALLOW/SODA,CAUSTIC/OIL		
runit1: TON	rquant1: 600	rvalue1: 50000
prod1: SOAP punit1: BOX	pquant1: 12000	pvalue1: 60000
proprior: PHIPPEN BETSY	typeest: SOAP/CANDLE FACTORY	refnum: 17692
cdid: 0066 ced: E	cdistric: KINGSTON	csd: ONTARIO
sec: 5.19 sic: 376	month: 12	prop: F
fixcap: 1200 flocap: 3000	typepow:	force: .
empmen: 3 empwom: .	empboy: .	empgirl: .
totemp: 3 wages: 410	avwage: \$ 11.39 per worker/month	
sumrawc: 1300	sumproc: 2000	vadd: 700
rawmat1: TALLOW/ASHES		
runit1: TON	rquant1: 12	rvalue1: 1300
prod1: CANDLES punit1: TON	pquant1: 3	pvalue1: 700
prod2: SOAP punit2: TON	pquant2: 13	pvalue2: 1300

industry types. Records for three of the Penitentiary establishments are reproduced, as well as a selection of smaller enterprises employing women and/or headed by female proprietors.

WORK ENVIRONMENTS

The CANIND71 database provides a snapshot of the transition from artisanal craftshops to factories using machinery and integrated work processes. A useful concept in understanding this transition is the **work environment**, which combines measures of the size of the workplace with the extent to which non-manual power was used in the industrial process. A basic distinction is made drawn between workplaces with no inanimate power (represented on the left side of the diagram) and workplaces powered by water or steam (right side). Work environments are further categorized as to the size of their workforces, producing four size classes: 1-5 workers, 6-25 workers, 26-50 workers, and 51 or more workers. Powered establishments with at least 26 workers are called **factories**, while **manufactories** are non-powered workplaces with at least 26 workers. Smaller powered establishments are called **mills** if they had from 6 to 25 workers, **powered craftshops** if they had 5 or fewer workers.

		USE OF POWER			
		non-powered (hand/horse only)		powered by water or steam	
SIZE OF WORKFORCE	51+	MANUFACTORIES (larger)		FACTORIES (larger)	51+
	26-50	MANUFACTORIES (smaller)		FACTORIES (smaller)	26-50
	6-25	SWEATSHOPS and larger CRAFTSHOPS		MILLS	6-25
	1-5	ARTISANS' CRAFTSHOPS		POWERED WORKSHOPS, smaller MILLS	1-5
		non-powered (hand/horse only)		powered by water or steam	

Workplaces using only hand or horse power are called **artisans' craftshops** if they employed 5 or fewer. Slightly larger craftshops, without water or steam power and employing between 6 and 25 workers, have been called **sweatshops** in the context of a large city. **Outworkers**, who toiled at home under the putting-out system, would be included with the artisans' craftshops, from which it is hard to distinguish them on census manuscript evidence alone.¹⁵ We should note that the terms used to describe the eight types of work environment do not really match contemporary usage in 1871, when factories, manufactories and shops were generic terms used interchangeably for all sizes of establishment. Our transcription of the natural language used by the census enumerators allows readers to note this terminology in the (TYPEEST) Type of Establishment data in the Appendix tables of this report.

Table 7
DISTRIBUTION OF WORKERS IN WORK ENVIRONMENTS, 1871

Work Environment (# employees)	Rural Ontario	Urban Ontario	Urban Frontenac County	Rural Frontenac County
Non-Powered	%	%	%	%
Artisans (1-5 emp)	45.4	17.8	0.7	38.0
Sweatshops (6-25 emp)	5.8	20.2	5.1	3.3
Manufactories (26-50 emp)	0.3	4.8	15.5	-
Manufactories (>51 emp)	0.5	5.5	53.4	-
Sub-Total	52.0	48.3	74.6	41.3
Powered				
Small (1-5 emp)	15.8	3.2	0.5	17.8
Medium (6-25 emp)	19.6	13.0	4.6	27.0
Factories (26-50 emp)	5.4	8.3	10.2	13.9
Factories (>51 emp)	7.2	27.2	10.2	-
Sub-Total	48.0	51.7	25.4	58.7
TOTAL	100.0	100.0	100.0	100.0

How significant were the various work environments in Frontenac County in 1871? Table 7 summarizes the proportions of workers employed in the eight basic types of workplace, for the Kingston with the other incorporated urban centres (Portsmouth-Penitentiary and Garden Island) and for the remainder of rural Frontenac County, in relation to the proportions for all of urban Ontario and all of rural Ontario. The

¹⁵ For more discussion of this concept see Patterns of Canadian Industry in 1871 (Report 12) and Elizabeth Bloomfield and G.T. Bloomfield, Canadian Women in Workshops, Mills and Factories: The Evidence of the 1871 Census Manuscripts (CANIND71 Research Report 11, 1991).

distinction between smaller workplaces in rural areas and larger establishments in urban centres holds in Frontenac County. In use of inanimate power, on the other hand, both urban and rural industries in Frontenac County seem at odds with the mean patterns for urban Ontario and rural Ontario. The classification of over half of industrial worker in manufactories using only animal or manual power reflects the special characteristics of the large Garden Island and Penitentiary establishments. The only large powered factories were the Canadian Engine and Machinery works, the Provincial Hardware factory, William Power's shipyard, and Rowland and Hofler's piano factory. Only 11 per cent of Kingston industrial employees were counted in large powered factories compared with 47 per cent in Hamilton, 45 per cent in Montreal and 43 per cent in Toronto.

The industrial work environments of male and female employees could be quite different. As elsewhere in this period, women and girls in paid industrial jobs were clearly concentrated in cities and towns. Seven of every ten women and girls recorded as industrial workers in Frontenac County were in Kingston, compared with only 43 per cent of the men and boys. But the female share of the industrial workforce (under 12 per cent) was much lower than in some other counties and cities such as Montreal (34 per cent), Quebec City (27 per cent), Toronto (24 per cent) or even Waterloo County (23 per cent). Lower female participation seems to have been typical of centres of metal-working and engineering which offered good wages for men and boys around 1870.

Table A-6 lists firms in Frontenac County which employed at least two women or girls in 1871. One indicator of the county's under-developed and special industrial status at this time is the fact that the only establishment that might be classified as a factory or manufactory was the Female Department of the Kingston Penitentiary.

CANADIAN Engine and Machinery Co.

CAPITAL, - \$250,000.

Works at Kingston,
ONTARIO.

President :

HENRY YATES, Esq.,

Vice-President :

R. J. REEKIE, Esq.

Directors :

HENRY YATES, Esq., Brantford.

R. J. REEKIE, Esq., Montreal.

GEO. STEPHEN, Esq., Montreal.

ROBERT CASSELS, Esq., Quebec.

JOHN SHEDDEN, Esq., Toronto.

Managing Director :

R. J. REEKIE, Esq., Montreal.

Secretary and Treasurer :

CHARLES GILBERT, Esq., Kingston.

Superintendent of Works :

G. J. TANDY, Esq., Kingston.

Canadian Engine & Machinery Co.,

KINGSTON, ONT.

The works of this Company are completely and fully equipped with the most approved of modern Tools and Machinery, for building

RAILWAY LOCOMOTIVES,

RAILWAY CARS,

Railway Snow Ploughs,

IRON RAILWAY BRIDGES, &C., &C.

We have already built Locomotives for all the principal Railways in the Dominion, as will be seen by the following list, viz:

Grand Trunk Railway,

Great Western Railway,

Nova Scotian Railway,

Northern Railway,

St. Lawrence & Ottawa Railway,

Brockville & Ottawa Railway,

Midland Railway,

Cobourg & Peterboro' Railway,

Toronto & Nipissing Railway.

And we are now building for the Intercolonial Railway.

For further particulars apply to the undersigned,

CHARLES GILBERT,

Secretary & Treasurer,
KINGSTON.

R. J. REEKIE,

Managing Director,
Great St. James Street, Montreal.

Appendix Tables

This county report presents several kinds of tabulations which are briefly introduced here. In understanding the abbreviated code names of database variables, users are referred to Table 3 on page 7, for the Standard Industrial Classification codes to Table 1 on page 5, and for the Major Industry Groups to Table 2 on page 6. Kingston is distinguished from the rest of Frontenac County in Tables A-2 and A-8/9.

Table A-1: Frontenac County: Geographical Summary of Firms, 1871

Summary data for each Census Sub-District (CSD), including horse-power units of non-manual power, value of fixed and floating capital, numbers of employees (men, women, boys, girls and total), annual wages paid, costs of raw materials, gross value of production, value added in manufacturing, and number of establishments. Data are totalled for each Census District (or part thereof) in the county, and totalled for the whole county. See Figure 1 for a map of CSDs and pp. 9-12 for discussion.

Table A-2: Frontenac County and Kingston: Industrial Structures, 1871 Summary data for each Major Industry Group, of establishments, horse-power units, value of fixed capital, total employment, gross value of production, and value added in manufacturing. See Figure 2 for diagrammatic representations for the employment structure by Major Industry Groups of Frontenac County, Kingston and all of Ontario.

Table A-3: Basic SIC codes for Frontenac County, 1871 Summary data for each Standard Industrial Classification type (including code suffixes but trimming compounds). For discussion of SIC types, see pp. 4-5 and pp. 11 and 14.

Table A-4: Listings of Individual Establishments, Ranked by Value of Output, for Various SIC Types, 1871

Data for cheese factories; flour mills; bakeries; tanneries; saddlers; boot and shoe makers; textile producers; clothing producers; wood processing businesses; metal-fabricating, machinery and railway shops; ship and boat builders; carriage and wagon shops; chemical works; musical instrument factories; building contractors; blacksmiths.

Table A-5: Frontenac County: Firms Using Inanimate Power, 1871 Data for individual establishments reporting water or steam, ranked by horse-power units.

Table A-6: Frontenac County: Firms Employing at least Two Females in 1871 Data for individual establishments, ranked by number of women and girls employed. Note use of FEMALE variable (total number of women and girls employed) variable.

Table A-7: Frontenac County: Firms Employing at least 25 or Reporting at least \$25,000 Output in 1871

Table A-8: Frontenac County excl. Kingston: Firms by Name of Proprietor, 1871 Data for individual establishments in alphabetical order of proprietor's name.

Table A-9: Kingston: Firms by Name of Proprietor, 1871 Data for individual establishments in alphabetical order of proprietor's name.

Table A-10: Portsmouth/Penitentiary: Firms by Name of Proprietor, 1871 Data for individual establishments in alphabetical order of proprietor's name.

Table A-1: Frontenac County: Geographical Summary of Firms, 1871

CDID	CED	CSD	FORCE	FIXCAP	FLOCAP	EMP MEN	EMP WOM	EMP BOY	EMP GIRL	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD	OBSERV
O064 F		BARRIE TP	16	2025	550	5	.	.	.	5	217	640	1075	435	2
O064 G		KENNEBEC	44	1250	30	5	.	.	.	5	660	836	2515	1679	5
O064 H		HINCHINBROOK	75	2860	1435	12	1	2	.	15	760	1025	2655	1630	5
O064 I		PORTLAND	415	22710	5815	76	1	16	.	93	15195	24797	52642	27845	38
O064 J		LOUGHBOROUGH	203	15610	5590	50	1	13	1	65	10837	18568	40644	22076	35
O064 K		BEDFORD	153	19050	4056	102	1	10	.	113	14291	30736	65400	34664	14
O064 L		OSO	25	1400	2000	4	.	2	.	6	588	600	1275	675	1
O064 M		OLDEN	20	890	168	7	10	.	3	20	627	1087	2355	1268	10
O064 O		CLARENDON/..	.	1500	200	3	.	.	.	3	700	3259	4400	1141	3
O064			951	67295	19844	264	14	43	4	325	43875	81548	172961	91413	113
O065 A		KINGSTON TP	214	34762	41269	83	7	10	.	100	23512	63365	98933	35568	38
O065 B		PENITENTIARY	85	70001	65000	451	43	.	2	496	68532	55768	280005	74237	10
O065 B		PORTSMOUTH V	25	44000	67500	52	1	.	.	53	16150	42166	79057	36891	5
O065 B			110	114001	132500	503	44	0	2	549	84682	97934	359062	111128	15
O065 C		GARDEN ISLAND	.	40000	.	175	.	20	.	195	50000	38000	180000	142000	2
O065 D		WOLFE ISLAND	44	11140	5355	25	8	.	.	33	8027	71125	86934	15809	19
O065 E		PITTSBURGH/..	295	38005	6702	70	2	7	.	79	15547	39013	64256	25243	29
O065 F		STORRINGTON	419	98700	75180	85	9	4	4	102	23448	148269	233265	84996	33
O065			1082	336608	261006	941	70	41	6	1058	205216	457706	1022450	414744	136
O066 A		VICTORIA	10	16000	7000	9	.	1	.	10	4300	20163	38200	18037	2
O066 B		RIDEAU	10	14170	7510	42	1	11	.	54	13100	20200	40359	20159	9
O066 C		FRONTENAC	9	9150	17450	81	17	6	9	113	27250	24079	81720	57641	23
O066 D		ST LAWRENCE	9	29860	110680	179	131	19	8	337	81869	180002	320830	140828	50
O066 E		ONTARIO	16	34850	44075	96	19	18	.	133	30718	34715	98948	64233	20
O066 F		SYDENHAM	102	401650	161270	377	26	17	5	425	146059	325754	555847	230093	23
O066 G		CATARAQUI	87	153995	49352	233	4	21	.	258	74508	146937	260432	113495	34
O066			243	659675	397337	1017	198	93	22	1330	377804	751850	1396336	64486	161
			2276	1063578	678187	2222	282	177	32	2713	626895	1291104	2591747	1150643	410

Table A-2-1: Frontenac County: Industrial Structure, 1871

FRONTENAC COUNTY EXCL. KINGSTON: MAJOR INDUSTRY GROUPS, 1871

SEC	OBSERV		FORCE		FIXCAP		TOTEMP		SUMPROC		VADD	
	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT
2 Forestry	1	0.4	.	.	32000	7.9	156	11.3	150000	12.5	127600	25.2
5.01 Food & Beverages	28	11.2	323	15.9	76510	18.9	59	4.3	217567	18.2	38435	7.6
5.04 Leather	31	12.4	121	6.0	118505	29.3	235	17.0	383445	32.1	90997	18.0
5.05 Textiles	21	8.4	76	3.7	19467	4.8	50	3.6	31344	2.6	11274	2.2
5.06 Knitting Mills	1	0.4	.	.	.	.	45	3.3	3400	0.3	2080	0.4
5.07 Clothing	6	2.4	.	.	250	0.1	38	2.7	9792	0.8	4498	0.9
5.08 Wood	66	26.5	1395	68.6	95535	23.7	294	21.3	172522	14.4	89058	17.6
5.09 Furniture	4	1.6	24	1.2	12800	3.2	53	3.8	30905	2.6	10658	2.1
5.13 Metal Fabricating	4	1.6	26	1.3	8700	2.2	79	5.7	51550	4.3	33000	6.5
5.14 Machinery	5	2.0	12	0.6	2125	0.5	9	0.7	4065	0.3	3525	0.7
5.15 Transportation Equipmt	31	12.4	6	0.3	19930	4.9	109	7.9	62810	5.3	37947	7.5
5.17 Non-metallic Minerals	8	3.2	10	0.5	8235	2.0	34	2.5	8815	0.7	7517	1.5
5.19 Chemicals	3	1.2	.	.	700	0.2	4	0.3	1610	0.1	850	0.2
6 Construction	3	1.2	20	1.0	4001	1.0	150	10.8	36766	3.1	26184	5.2
8 Trade (incl repair)	1	0.4	.	.	100	0.0	1	0.1	200	0.0	180	0.0
10 Services (notably blacksmiths)	36	14.5	20	1.0	5045	1.2	67	4.8	30620	2.6	22354	4.4
ALL	249	100.0	2033	100.0	403903	100.0	1383	100.0	1195411	100.0	506157	100.0

Table A-2-1: Kingston: Industrial Structure, 1871

SEC	OBSERV		FORCE		FIXCAP		TOTEMP		SUNPROC		VADD	
	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT	SUM	PERC- ENT
5.01 Food & Beverages	21	13.0	26	10.7	48120	7.3	69	5.2	172175	12.3	66334	10.3
5.02 Tobacco	2	1.2	.	.	800	0.1	18	1.4	18000	1.3	9000	1.4
5.04 Leather	23	14.3	.	.	4170	0.6	109	8.2	56607	4.1	33706	5.2
5.05 Textiles	3	1.9	.	.	7200	1.1	16	1.2	16100	1.2	5225	0.8
5.07 Clothing	36	22.4	.	.	10725	1.6	266	20.0	233348	16.7	81402	12.6
5.08 Wood	4	2.5	41	16.9	16550	2.5	22	1.7	14026	1.0	7396	1.1
5.09 Furniture	4	2.5	10	4.1	3610	0.5	17	1.3	12700	0.9	11410	1.8
5.11 Printing & Publishing	5	3.1	.	.	17500	2.7	53	4.0	27600	2.0	19300	3.0
5.13 Metal Fabricating	10	6.2	21	8.6	33850	5.1	106	8.0	85500	6.1	49940	7.7
5.14 Machinery	3	1.9	25	10.3	19500	3.0	61	4.6	50130	3.6	35730	5.5
5.15 Transportation Equipmt	12	7.5	54	22.2	249450	37.8	331	24.9	398472	28.5	170406	26.4
5.17 Non-metallic Minerals	2	1.2	.	.	800	0.1	13	1.0	9500	0.7	6200	1.0
5.19 Chemicals	11	6.8	22	9.1	21600	3.3	45	3.4	102700	7.4	31110	4.8
5.2 Miscellaneous Mnfng	8	5.0	10	4.1	10200	1.5	111	8.3	107850	7.7	40960	6.4
6 Construction	7	4.3	16	6.6	6450	1.0	53	4.0	32500	2.3	27449	4.3
7 Utilities	2	1.2	12	4.9	205000	31.1	15	1.1	28713	2.1	20463	3.2
8 Trade (incl repair)	3	1.9	.	.	1900	0.3	7	0.5	4525	0.3	4335	0.7
10 Services (notably blacksmiths)	5	3.1	6	2.5	2250	0.3	18	1.4	25890	1.9	24120	3.7
ALL	161	100.0	243	100.0	659675	100.0	1330	100.0	1396336	100.0	644486	100.0

Table A-3: Basic SIC codes for Frontenac County, 1871

BASIC SIC CODES FOR FRONTENAC WITH KINGSTON, 1871

SIC	OBSERV	FORCE	FIXCAP	FLOCAP	EMP MEN	EMP WOM	EMP BOY	EMPGIRL	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
031	1	.	32000	.	140	0	16	.	156	40000	22400	150000	127600
101-P	3	.	5220	3530	4	1	0	.	5	1575	2887	5167	2280
104	12	12	9600	10450	14	10	0	.	24	2936	20736	26311	5575
105	11	305	50700	25870	19	0	0	.	19	6182	140010	159280	19270
107	12	6	9160	8050	38	3	4	.	45	12982	72446	103970	31524
108	1	4	2500	500	2	0	0	.	2	800	8000	9500	1500
108-C	5	.	3450	6020	7	2	1	1	11	2586	6235	13514	7279
109-B	4	22	42000	19500	18	0	1	.	19	7728	31659	65800	34141
109-S	1	.	2000	500	2	0	1	.	3	728	3000	6200	3200
153	2	.	800	1800	13	0	5	.	18	3500	9000	18000	9000
172	6	121	65140	116000	67	0	0	.	67	21025	135960	218935	82975
174	30	.	55985	33708	222	7	8	.	237	36255	22637	204109	31472
175	5	.	150	538	5	6	0	2	13	385	324	958	634
179-S	13	.	1400	2500	26	0	1	.	27	6304	6428	16050	9622
182	1	20	9000	1500	5	3	2	2	12	1600	6000	10500	4500
182-W	15	.	367	262	5	18	1	1	25	2240	5550	9174	3624
184	2	.	2200	800	7	0	5	.	12	2100	4375	7500	3125
187	1	.	5000	1500	4	0	0	.	4	1200	6500	8600	2100
189-W	5	56	10100	1400	9	0	1	3	13	1748	8520	11670	3150
239-K	1	.	.	.	0	43	0	2	45	2412	1320	3400	2080
242	15	.	8675	57525	58	91	3	8	160	36976	92214	147414	55200
243	7	.	650	400	6	6	0	.	12	1677	7390	11462	4072
244	10	.	400	200	0	37	0	13	50	4242	17316	23064	5748
246	3	.	410	1500	8	7	0	.	15	2655	10700	20250	9550
249	1	.	.	.	31	0	0	.	31	2830	4120	6950	2830
249-M	6	.	840	12800	0	36	0	.	36	3285	25500	34000	8500
251	47	1288	90230	22005	213	0	31	.	244	33225	78284	151386	73102
251-S	9	140	11600	4280	30	0	14	.	44	6062	8575	23722	15147
254	1	8	8500	8000	9	0	3	.	12	3000	2500	6000	3500
259	4	.	1170	225	6	0	0	.	6	1163	308	1970	1662
259-C	9	.	585	445	10	0	0	.	10	2360	427	3470	3043
261	34	34	16410	29530	70	0	0	.	70	10732	21537	43605	22068
286	2	.	4500	1100	6	0	1	.	7	1600	2000	5600	3600
287-B	1	.	2000	.	3	1	1	.	7	1600	800	3000	2200
289	2	.	11000	.	27	6	6	.	39	7640	5500	19000	13500
301	1	6	1000	300	5	0	3	.	8	1800	1500	4000	2500
304-T	8	.	7850	30520	46	0	7	.	53	15018	22690	46950	24260
307-S	1	15	25000	20000	42	0	0	.	42	15000	11200	32500	21300
309	3	1	700	1075	5	0	2	.	7	1900	720	3600	2880
309-S	1	25	8000	15000	75	0	0	.	75	20000	18000	50000	32000
311	2	10	3045	2050	9	0	1	.	10	2600	2300	5355	3055
315	1	4	1000	600	1	0	1	.	2	400	150	2000	1850
315-E	1	15	15000	40000	45	0	2	.	47	11000	11100	40000	28900
315-H	3	8	1080	700	3	1	1	.	5	590	90	840	750
315-P	1	.	1500	8500	6	0	0	.	6	2347	1300	6000	4700
326	1	20	200000	50000	169	0	4	.	173	75000	200988	306000	105012
327	4	30	48400	12050	123	0	8	.	131	38137	30450	81437	50987
327-M	1	8	5000	8000	36	0	5	.	41	10000	9500	30000	20500
328	7	.	2950	1790	16	0	1	.	17	4785	1021	6100	5079
329	29	2	12930	9675	70	0	7	.	77	21196	10925	37295	26370
329-P	1	.	100	75	1	0	0	.	1	360	45	450	405

BASIC SIC CODES FOR FRONTENAC WITH KINGSTON, 1871

SIC	OBSERV	FORCE	FIXCAP	FLOCAP	EMP MEN	EMP WOM	EMP BOY	EMP GIRL	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
351-B	2	2	3200	2050	9	0	2	.	11	1700	210	2520	2310
353	5	8	5625	2950	27	0	2	.	29	5925	4140	14475	10335
358-L	3	.	210	264	7	0	0	.	7	480	248	1320	1072
374	1	.	500	4000	2	0	0	.	2	320	400	1260	860
375	1	.	300	1000	4	0	1	.	5	1800	540	3000	2460
376	5	10	11400	17900	18	0	2	.	20	5310	57700	71020	13320
378-P	7	12	10100	2900	22	0	0	.	22	5949	13710	29030	15320
392	3	.	2400	3700	10	0	2	.	12	4860	3190	10600	7410
399-B	2	.	800	9000	18	3	0	.	21	7350	1700	18500	16800
399-P	3	10	7000	16500	67	0	11	.	78	28900	62000	78750	16750
421-C	7	28	6850	8300	63	0	0	.	63	15380	11020	38000	26980
421-D	1	.	600	800	5	0	1	.	6	800	751	2000	1249
421-S	2	8	3001	2000	133	0	1	.	134	19610	3862	29266	25404
574	1	.	80000	.	6	0	0	.	6	1768	4250	13713	9463
576	1	12	125000	25000	9	0	0	.	9	9000	4000	15000	11000
658	1	.	100	10	1	0	0	.	1	100	20	200	180
695	3	.	1900	1600	7	0	0	.	7	3000	190	4525	4335
893	1	.	700	3000	1	1	1	.	3	1150	700	20000	19300
896	40	26	6595	4440	77	0	5	.	82	20027	9336	36510	27174
=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
410	2276	1063578	678187	2222	282	177	32	2713	626895	1291104	2591747	1150643	

Table A-4: Listings of Individual Establishments,
Ranked by Value of Output, for Various SIC Types, 1871

FRONTENAC COUNTY: CHEESE FACTORIES, 1871												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	D-2	BENNETT TRUEMAN	CHEESE FACTORY	104	1200	STEAM	4	2	300	3200	4280	1080
0065	F-1	DALY JAMES	CHEESE FACTORY	104	1200		.	3	512	3420	4180	760
0065	D-2	BARETT GEORGE	CHEESE FACTORY	104	1700	STEAM	6	2	250	3400	4000	600
0065	E-2	MCLANE JOHN	CHEESE FACTORY	104	900		.	1	180	1920	2400	480
0065	E-2	COWAN ALEXANDER	CHEESE FACTORY	104	700		.	2	300	1953	2331	378
0065	F-1	WOLFE WELLINGTON	CHEESE FACTORY	104	500		.	2	300	1600	2000	400
0065	F-1	DUFF WILLIAM	CHEESE FACTORY	104	700		.	3	240	1620	1860	240
0065	D-2	DAVES JOHN	CHEESE FACTORY	104	500	STEAM	2	2	150	1061	1374	313
0065	F-1	LYON LYMAN	CHEESE FACTORY	104	400		.	1	200	1000	1200	200
0064	I-1	SPIKE AARON	CHEESE FACTORY	104	1000		.	1	124	982	1106	124
0064	K	GELDERSLEEVE C	CHEESE FACTORY	104	600		.	4	180	80	800	720
0065	F-1	SPOONER HIRAM	CHEESE FACTORY	104	200		.	1	200	500	780	280
					9600		12	24	2936	20736	26311	5575
FRONTENAC COUNTY: FLOUR MILLS, 1871												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	D-2	GOING S & H & CO	GRIST/FLOUR MILL	105	6000	STEAM	30	2	1000	60000	66000	6000
0065	F-2	FOSTER THOMAS	GRIST MILL	105	4000	WATER	45	2	620	29000	34270	5270
0065	A-2	BOWERMAN & MORGAN	GRIST MILL	105	8000	WATER	35	2	700	15000	16220	1220
0065	E-2	SMITH EDWARD	GRIST MILL	105	6000	WATER	80	2	692	9500	11300	1800
0065	F-2	VANLUVIN HENRY	GRIST MILL	105	10000	WATER	30	2	650	8500	9200	700
0064	I-1	LOTT GEORGE	FLOUR MILL	105	6000	WATER	.	2	650	6000	7000	1000
0065	A-1	MCGUIN ANTHONY	FLOUR/FEED MILL	105	6000	WATER	30	2	800	6000	7000	1000
0064	J-1	MACE WILLIAM	GRIST MILL	105	2000	WATER	20	1	240	2500	3600	1100
0064	O	PLAYFAIR ELISHA	GRIST MILL	105	600	WATER	.	1	200	3000	3500	500
0064	K	CHAFFEY JOHN	GRIST MILL	105	2000	WATER	15	2	500	450	1000	550
0064	I-2	PIERCE JOSHUA R	FLOUR MILL	105	100	WATER	20	1	130	60	190	130
					50700		305	19	6182	140010	159280	19270
FRONTENAC COUNTY: BAKERIES, 1871												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	D	SWANSEN ADAM	BAKER	107	1000		.	4	1040	11232	14956	3724
0066	D	GRAHAM THOMAS	BAKER	107	1000		.	4	1400	8580	13870	5290
0066	F	MCCAMMON ROBERT	BAKERY	107	2000		.	5	2000	9363	13803	4440
0066	G	HUTCHINSON/CROTHER	BAKERY/CONFECTION	107/108-C	1200	STEAM	6	6	2184	8882	13566	4684
0066	B	CARNOVSKY ROBERT	BAKERY/CONFECTION	107/108-C	500		.	5	1000	7025	11000	3975
0065	A-1	NORTHMORE JOSEPH	BAKERY	107	1000		.	5	1600	7800	9600	1800
0066	E	CUMMINGS HUGH	BAKERY	107	1000		.	3	700	5400	7313	1913
0066	D	PILLAR WILLIAM	BAKER	107	200		.	2	624	5574	7293	1719
0066	G	ROSS ELIZABETH	BAKERY	107	50		.	3	884	4000	5500	1500
0064	J-1	HOWEDANSKI THOMAS	BAKERY	107	150		.	2	350	2340	2760	420
0064	J-1	TRISSADAL WESLEY	BAKERY	107	60		.	2	200	1500	2559	1059
0066	E	GRAY ARTHUR W	BREAD/CONFECTION	107/108-C	1000		.	4	1000	750	1750	1000
					9160		6	45	12982	72446	103970	31524

FRONTENAC COUNTY: TANNERIES, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	F-2	HAMILTON H & C	TANNERY	172	31000	WATER	50	22	7209	60000	108000	48000
0065	B-1	CARRUTHERS I & CO	TANNERY	172	20000	STEAM	15	18	5000	30000	45000	15000
0065	A-1	FIRDGER WILLIAM	TANNERY	172	8000	STEAM	40	20	7000	25360	36155	10795
0065	F-2	HAMILTON H & C	TANNERY	172	5000	WATER	16	3	896	18900	26380	7480
0064	I-1	THOMPSON WILLIAM	TANNERY	172	140		.	1	200	1200	2400	1200
0064	I-1	MCKIM HIRAM	TANNERY	172	1000		.	3	720	500	1000	500
					65140		121	67	21025	135960	218935	82975

FRONTENAC COUNTY: SADDLERS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	G	WILKINSON CHARLES	SADDLE/HARNESSMA	179-S	300		.	2	624	1800	2800	1000
0066	C	DOLAND MARTIN	HARNESSMAKER	179-S	100		.	4	1200	594	2400	1806
0066	C	WELLS HENRY	HARNESSMAKER	179-S	50		.	4	900	396	1800	1404
0066	D	GRAVES REUBEN	SADDLER	179-S	100		.	2	600	400	1600	1200
0066	G	WALKER ROBERT	SADDLE/HARNESSMA	179-S	40		.	3	520	360	1500	1140
0066	D	WILTON HENRY	HARNESSMAKER	179-S	75		.	3	700	400	1200	800
0065	B-2	PENITENTIARY	HARNESS SHOP	179-S	.		.	2	480	698	1180	482
0065	F-1	PURDY MARSHALL	HARNESS SHOP	179-S	100		.	1	400	400	1000	600
0064	I-1	CARSCALLAR PHILLI	HARNESS MANUFACT	179-S	25		.	1	100	580	900	320
0065	A-2	MCKIM PETER	SADDLER/HARNESSM	179-S	400		.	1	300	400	700	300
0064	J-1	RANKIN MICHAEL ?	HARNESS SHOP	179-S	100		.	2	300	300	600	300
0065	E-2	MALOY GERARD	HARNESS SHOP	179-S	10		.	1	80	50	200	150
0065	A-4	VANLUVAN WILLIAM	HARNESS SHOP	179-S	100		.	1	100	50	170	120
					1400		0	27	6304	6428	16050	9622

FRONTENAC COUNTY: BOOT AND SHOE MAKERS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	B-2	PENITENTIARY	BOOT/SHOE MF	174	50000	.	.	125	15000	.	150000	.
0066	G	DILLON JOSEPH	BOOT/SHOEMAKER	174	1000	.	.	20	3000	5000	9600	4600
0066	G	SUTHERLAND ALEXAN	BOOT/SHOE MF	174	600	.	.	9	2446	2050	7446	5396
0066	D	ADAMS WILLIAM	SHOEMAKER	174	100	.	.	7	2600	3000	6600	3600
0066	E	SMITH ALEXANDER	BOOTS/SHOES	174	500	.	.	7	1400	2500	4000	1900
0066	E	THOMPSON THOMAS	BOOT/SHOEMAKER	174	100	.	.	4	900	1100	3000	1775
0065	B-2	PENITENTIARY	SHOE SHOP	174	.	.	.	10	1775	1200	2975	1775
0066	E	ALIEN WILLIAM	BOOT/SHOEMAKER	174	300	.	.	14	2000	1300	2600	1300
0066	D	BOWER TIMOTHY	BOOT/SHOEMAKER	174	100	.	.	5	1200	1000	2400	1400
0066	E	WOOLARD ROBERT	BOOT/SHOE FACTOR	174	300	.	.	3	500	2000	500	1400
0066	G	GARRIGAN JAMES	BOOT/SHOEMAKER	174	100	.	.	3	800	522	1800	1278
0066	D	BRUNELL ARCHIBALD	SHOEMAKER	174	100	.	.	2	400	324	1300	976
0065	A-2	PAWLEY JACOB	BOOT/SHOE SHOP	174	2000	.	.	2	600	450	1250	800
0066	E	DOHERTY JAMES	BOOT/SHOEMAKER	174	100	.	.	6	600	515	1215	700
0066	G	DAVIS JAMES	SHOEMAKER	174	50	.	.	2	400	300	900	600
0064	J-1	LOCKHART JOHN	SHOEMAKING	174	50	.	.	2	350	400	800	400
0066	D	HACKIT & JOHNSTO	SHOEMAKER	174	10	.	.	2	200	200	800	600
0064	J-1	GARVIN JAMES	SHOEMAKING	174	40	.	.	1	150	300	600	300
0064	K	ROGERS JOSEPH	SHOE MAKING EST	174	100	.	.	1	100	452	600	148
0065	D-2	FURLONG JAMES	SHOE SHOP	174	100	.	.	1	324	100	600	500
0065	D-2	BERRY JOHN	SHOE SHOP	174	50	.	.	1	150	100	500	500
0064	I-1	DODD DAVID	BOOT/SHOE FACTOR	174	30	.	.	1	300	200	568	368
0066	G	HUME WALTER	SHOEMAKER	174	25	.	.	1	250	170	500	330
0064	I-1	BENNET HENRY ?	BOOT/SHOE FACTOR	174	20	.	.	1	180	189	450	261
0064	K	LINDSAY JOHN	SHOE/BOOTMAKING	174	100	.	.	1	100	300	400	100
0066	D	ALDERDICE JOHN	SHOEMAKER	174	10	.	.	2	200	10	312	302
0066	B	GORDON JOHN	BOOT/SHOE SHOP	174	20	.	.	1	50	120	234	114
0065	E-3	LINSEY ROBERT	SHOE SHOP	174	30	.	.	1	100	80	195	115
0065	A-4	WEAGAR GEORGE	SHOE SHOP	174	20	.	.	1	100	75	188	113
0064	M		SHOE SHOP	174	30	.	.	1	80	80	176	96
					55985	0	237	36255	22637	204109	31472	

FRONTENAC COUNTY: TEXTILE PRODUCERS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	F-2	HEWTON WILLIAM	WOOLEN FACTORY	182	9000	WATER	20	12	1600	6000	10500	4500
0066	F	FALCONER & HORN	SAIL MAKING EST	187	5000		.	4	1200	6500	8600	2100
0065	F-2	FOSTER THOMAS	CARDING/SPINNING	189-W/189-S	6000	WATER	25	6	800	5000	6600	1600
0066	B	LAW EDWARD	ROPE FACTORY	184	1200		.	7	1100	2325	4000	1675
0066	B	BEATTIE ALEXAND	ROPE FACTORY	184	1000		.	5	1000	3500	1450	1675
0065	A-3	STAGGS JOHN W	CLOTH MANUFACTOR	182-W	40		.	4	750	1500	2600	1100
0064	J-1	RICHARDSON WILLIA	CARDING/FULLING	189-W	1000	WATER	8	3	400	1000	1800	800
0064	I-2	BOYCE N R	CARDING MILL	189-W	600	WATER	20	2	1400	1400	1400	200
0065	F-2	CARSON WILLIAM	WEAVER	182-W	60		.	2	340	677	1090	413
0065	A-4	DAVID MOSES	HANDLOOM	182-W	30		.	3	200	700	1000	300
0065	A-2	BOWERMAN & MORGAN	CARDING MILL	189-W	1500	WATER	3	1	104	720	970	250
0064	I-1	LOTT GEORGE	CARDING/FULLING	189-W	1000	WATER	.	1	300	600	900	300
0065	E-3	ABRAMS JOHN	WEAVER	182-W	15		.	1	120	550	750	200
0064	M	WEAGER MRS P	WEAVING SHOP	182-W	20		.	2	70	302	524	222
0065	A-4	ORSER RHODA	HANDLOOM	182-W	12		.	1	90	220	470	250
0065	D-3	FLYN ELLEN	WEAVER	182-W	20		.	1	80	225	360	135
0065	D-3	BERRY MARY ANN	WEAVER	182-W	30		.	1	80	225	360	135
0065	E-3	MANGING PATRICK	WEAVER	182-W	20		.	1	50	250	350	100
0065	D-3	WHITMORE LAURINDA	WEAVER	182-W	15		.	1	100	210	340	130
0065	D-3	BUCKLEY SUSAN	WEAVER	182-W	15		.	1	90	200	320	120
0064	M	COX MARY	WEAVING SHOP	182-W	20		.	2	60	147	300	153
0065	E-3	KANE SAMUEL	WEAVER	182-W	30		.	1	60	100	250	150
0065	E-3	MURPHY WILLIAM	WEAVER	182-W	20		.	1	60	120	240	120
0064	M	DUSHANE MRS	WEAVING SHOP	182-W	20		.	3	90	124	220	96
					26667				76	66	8888	16499
									30945	47444		

FRONTENAC COUNTY: CLOTHING ESTABLISHMENTS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	D	MOORE THOMAS	MERCHANT TAILOR	242	600	.	.	25	5000	27000	33750	6750
0066	D	MCNAUGHTON JOHN &	CLOTHIER	242	200	.	.	22	8000	12000	26000	14000
0066	D	HAY WILLIAM	MERCHANT TAILOR	242	200	.	.	15	3000	11250	16000	4750
0066	D	SEALE THOMAS	CLOTHIER	242	350	.	.	16	4000	9000	14000	5000
0066	D	DORAN B & CO	MILLINERY	249-M/244	100	.	.	6	535	10000	12000	2000
0066	D	WRIGHT CLARK	HATTER/FURRIER	246	300	.	.	9	1759	5500	12000	6500
0066	E	FAHEY MICHAEL	CLOTHES	242	5000	.	.	18	3408	7500	11000	3500
0066	D	MCKAY DONALD	MERCHANT TAILOR	242	200	.	.	9	1200	6000	8000	2000
0066	G	GROH WILLIAM	FURRIER	246	10	.	.	3	376	5000	7500	2500
0065	B-2	PENITENTIARY	TAILOR SHOP	249	.	.	.	31	2830	4120	6950	2830
0066	D	ROSS ALEXANDER	MILLINERY	249-M	100	.	.	6	850	4500	6000	1500
0066	D	SLAVIN JAMES	MERCHANT TAILOR	242	75	.	.	6	1600	3500	6000	2500
0066	D	SANDS JOHN	MERCHANT TAILOR	242	200	.	.	11	2080	3000	5700	2700
0066	D	THOMPSON ADAM	MERCHANT TAILOR	242	.	.	.	8	1600	3000	5600	2600
0066	D	CONLEY THOMAS	MERCHANT TAILOR	242	100	.	.	6	1040	3000	5250	3000
0066	D	ANDREWS GEORGE	MERCHANT TAILOR	242	1000	.	.	10	3120	1000	5000	4000
0066	D	LEVY ARNOLD	CLOTHIER	242	500	.	.	4	750	3000	4700	1700
0066	F	SPRIGGS MRS	DRESS MAKING EST	244	.	.	.	8	314	3455	4160	705
0066	D	LIVINGSTON CHARLE	MERCHANT TAILOR	242	100	.	.	6	1000	2000	4000	2000
0066	D	DOYLE JOANNA & C	MILLINERY	249-M/244	100	.	.	6	400	3000	4000	1000
0066	D	LACEY W P & CO	MILLINERY	249-M	40	.	.	2	200	3000	4000	1000
0066	D	KINNEAR ELIZABE	MILLINER	249-M	300	.	.	10	800	2500	4000	1500
0066	D	ANGLIN CECILIA	MILLINER	249-M	200	.	.	6	500	2500	4000	1500
0066	C	ANDERSON ELIZABE	DRESSMAKING	244	100	.	.	8	600	3000	3700	700
0066	F	MCLEROY MRS	DRESSMAKER/MILLI	244/249-M	.	.	.	6	900	2825	3550	925
0066	C	SHERLOCK JOHN M	TAILOR	243	100	.	.	3	500	2500	3500	1000
0066	C	TIPSON ANDREW	TAILOR	243	300	.	.	3	240	2080	3120	1040
0066	C	CANNOR WILLIAM	TAILOR	243	100	.	.	2	300	2000	3000	1000
0066	C	ROSE ANN	DRESSMAKER	244	100	.	.	5	400	2000	3000	1000
0066	F	MCHEEVER MISS	DRESS MAKING EST	244	.	.	.	5	500	1560	2060	500
0066	F	LAVERTY MISS	DRESS MAKING EST	244	.	.	.	4	416	1248	1664	416
0066	F	FAWCETT MRS	DRESS MAKING EST	244	.	.	.	4	300	1248	1548	300
0066	C	BABCOCK CATHERI	DRESSMAKER	244	100	.	.	3	200	1000	1500	500
0066	F	FAHEY MISS R	DRESS MAKING EST	244	.	.	.	4	312	1170	1482	312
0066	D	DALY PATRICK	MERCHANT TAILOR	242	50	.	.	1	614	600	1414	814
0064	J-1	IVEY JOHN	TAILOR SHOP	243	50	.	.	1	350	400	1000	600
0065	D-2	SANDERS JOHN	TAILOR SHOP	242	100	.	.	3	564	364	1000	636
0066	G	TWEADELL MARY	HAT/FUR MANUFACT	246	100	.	.	3	520	200	750	550
0064	I-1	PARKIN RICHARD	TAILORING EST	243	50	.	.	1	200	150	410	260
0066	D	BUTTUN HARRIET	MANTLEMAKER	244	100	.	.	3	300	10	400	390
0064	J-1	COPENGER THOMAS	TAILOR SHOP	243	50	.	.	1	75	200	350	150
0064	M	JOHNSTON MRS RUTH	TAILORESS	243	.	.	.	1	12	60	82	22
									51665	157240	243140	85900
									0	304		
									10975			

FRONTENAC COUNTY: WOOD PROCESSING INDUSTRIES, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0064	K	WARREN L M	SAW/SHINGLE MILL	251/251-S	5000	STEAM	40	40	6000	14000	36800	22800
0065	E-2	MCROSSIE W	SAW/SHINGLE MILL	251/251-S	20000	STEAM	40	20	4000	16000	24000	8000
0064	K	CHAFFEY JOHN	SAW MILL	251	6000	WATER	.	48	6000	12500	20000	7500
0065	E-3	ANGLIN ROBERT	SAW MILL	251	15000	WATER	150	6	1800	5000	8000	3000
0065	F-2	HOPKINS ABRAHAM	SAW/SHINGLE MILL	251/251-S	15000	WATER	50	7	1800	4250	7050	2800
0064	J-1	WOOD JAMES	SHINGLE MILL	251-S	2500	WATER	20	7	1572	3200	7000	3800
0066	E	IRVING W & J	SASH/DOOR FACTOR	254	8500	STEAM	8	12	3000	2500	3000	3500
0066	G	ANGLIN & HARTNER	SAW MILL	251	7000	STEAM	25	7	858	3900	5616	1716
0064	I-2	PAWLEY WILLIAM	SAW MILL	251	2000	WATER	300	16	2000	2800	5600	2800
0064	J-1	PURDY LEWIS	SAW MILL	251/251-S	2000	STEAM	16	5	1200	1800	5100	3300
0064	I-1	WALSORTH HENRY	SHINGLE FACTORY	251-S	1500	STEAM	16	6	1000	1500	5000	3500
0064	I-1	LOTT GEORGE	SAW MILL	251	2000	WATER	.	10	1600	2500	5000	2500
0065	F-2	THORN & ANGLIN	SAW MILL	251	2000	WATER	25	4	960	1300	4400	3100
0064	I-2	CAMPSALL BENJAMIN	SHINGLE FACTORY	251-S	2000	STEAM	12	5	600	1200	3800	2600
0064	K	HARRIS JOHN	SAW MILL	251	3000	WATER	40	8	500	1250	2500	1250
0064	J-2	SMYTH GEORGE	SAW MILL	251	1200	WATER	18	3	170	450	2400	1950
0064	J-2	MARTIN CHARLES	SHINGLE FACTORY	251-S	1000	STEAM	16	4	900	825	2160	1335
0066	F	GRAY DAVID	PLANING MILL	251	1000	STEAM	8	2	325	200	1980	1780
0065	A-4	WARTMAN BARNABAS	SHINGLE FACTORY	251-S	800	STEAM	18	6	194	300	1700	1400
0064	J-1	DAVY ADAM	SAW MILL	251	1000	WATER	30	2	300	900	1600	700
0065	E-3	KIRKWOOD ALEXANDE	SAW MILL	251	1150	STEAM	25	4	312	1000	1600	600
0065	F-3	HARRIS C	SAW MILL	251	2000	WATER	45	6	600	1000	1600	600
0064	I-1	DAY ABSALOM	SHINGLE FACTORY	251-S	1000	STEAM	15	7	928	480	1562	1082
0065	F-1	PERRY GEORGE	SAW MILL	251	1000	WATER	16	1	300	1000	1500	500
0064	L	FANSET ACE	SHINGLE MILL	251-S	1400	WATER	25	6	588	600	1275	675
0065	F-2	JACKSON JOHN	SAW MILL	251	1000	WATER	20	2	420	500	1200	700
0065	F-2	CHAPMAN JOHN	SHINGLE MILL	251-S	1400	WATER	18	1	200	450	1125	675
0064	H	LOTT GEORGE	SAW MILL	251	700	WATER	30	6	180	600	1050	450
0065	F-3	YOUNG WILLIAM	SAW MILL	251	1000	WATER	25	2	400	450	1050	600
0064	F	SNIDER CHARLES S	SAW MILL	251	2000	WATER	8	2	192	600	1000	400
0064	G	WILLIAMS JAMES	SAW MILL	251	500	WATER	20	1	200	400	980	580
0064	K	ASSETTINE WILLIAM	SAW MILL	251	400	WATER	12	2	100	750	950	200
0064	G	NEWTON RICHARD	SAW MILL	251	500	WATER	20	1	150	375	800	425
0065	A-2	BOWERMAN & MORGAN	SAW MILL	251	400	WATER	18	3	204	400	800	400
0064	I-2	MCWILLIN JOSEPH	COOPER SHOP	259-C	100	WATER	.	1	240	80	725	645
0064	M	BOWERMAN JAMES	SAW MILL	251	800	WATER	20	1	140	300	720	420
0064	I-2	GRANT ALEXANDER	COOPER SHOP	259-C	125	WATER	.	2	480	100	700	600
0065	A-2	LENORD NATHANIEL	SAW MILL	251	500	WATER	20	2	180	300	660	360
0065	E-2	JACKSON FREDERICK	CARPENTER SHOP	259	500	WATER	.	2	488	88	660	572
0064	I-2	VENNEST PETER	SAW MILL	251	600	WATER	20	3	104	250	600	350
0065	D-2	SWATMEN M	CARPENTER SHOP	259	120	WATER	.	1	225	80	600	520
0065	E-2	REEVE JOHN	COOPER SHOP	259-C	50	WATER	.	1	400	52	530	478
0064	K	BABCOCK JAMES	SAW MILL	251	350	WATER	10	1	175	300	500	200
0064	O	FISHER F	SAW MILL	251	600	WATER	.	1	300	150	500	350
0065	A-2	ASH D	CARPENTER SHOP	259	400	WATER	.	1	300	80	500	300
0064	I-2	CAMPSALL BENJAMIN	SAW MILL	251	300	STEAM	12	2	200	180	480	420
0064	J-2	MARTIN CHARLES	SAW MILL	251	600	STEAM	16	1	60	420	480	60
0065	F-3	GUTHRIE WILLIAM	SAW MILL	251	1000	WATER	22	2	200	480	250	230
0064	K	YOUNG JAMES	SAW MILL	251	500	WATER	12	2	100	300	450	150
0064	H	DUFFIN DUMAS	SAW/SHINGLE MILL	251/251-S	1500	WATER	30	3	150	100	440	340
0066	G	MOWAT OLIVER	COOPER	259-C	50	WATER	.	1	312	30	430	400
0064	I-1	EASTON WILLIAM	BARREL/TUB FACTO	259-C	30	WATER	.	1	200	30	400	370

FRONTENAC COUNTY: WOOD PROCESSING INDUSTRIES, 1871 (continued)

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0064	J-2	AVREY PETER	SAW MILL	251	200	WATER	10	1	45	300	400	100
0064	O	PLAYFAIR ELISHA	SAW MILL	251	300	WATER	.	1	200	109	400	291
0065	A-1	MCGUIN ANTHONY	SAW MILL	251	200	WATER	30	1	200	200	400	200
0065	A-2	BRIDGE ANDREW	COOPER SHOP	259-C	100		.	1	300	50	400	350
0065	F-2	MILLER WILLIAM	SAW MILL	251	500	WATER	12	2	148	150	400	250
0064	I-1	CHARLTON ALEXANDE	SAW MILL	251	200	WATER	.	2	36	200	360	160
0064	K	BATTING BENJAMIN	SAW MILL	251	400	WATER	12	1	46	150	300	150
0065	A-4	WARTMAN PETER	SAW MILL	251	400	WATER	.	2	200	75	300	225
0064	J-2	REA WILLIAM	SAW MILL	251	150	WATER	20	1	30	200	240	40
0065	D-2	VENESS GEORGE	CARPENTER SHOP	259	150		.	2	150	60	210	150
0064	K	TAGGART JOSEPH	SAW MILL	251	400	WATER	12	1	40	100	200	100
0065	A-2	GIBSON JAMES	SAW MILL	251	400	WATER	14	2	40	150	200	50
0064	J-2	HENRY DAVID	SAW MILL	251	80	WATER	20	2	20	100	160	60
0064	H	CARROLL JOHN	SAW MILL	251	400	WATER	15	2	40	75	140	65
0064	G	HAYS WILLIAM	COOPER SHOP	259-C	50		.	1	60	30	135	105
0064	I-2	BENN ROBERT	COOPER SHOP	259-C	20		.	1	68	25	100	75
0064	M	JOHNSTON ANDREW	SHINGLE FACTORY	251-S	.		.	2	80	20	100	80
0065	A-4	DAVID ISAAC	COOPER SHOP	259-C	60		.	1	300	30	50	20
					112085				1436	316	45810	90094
											186548	96454

FRONTENAC COUNTY: METAL PRODUCTS, MACHINERY, RAILWAY SHOPS

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	F	CANADIAN ENGINE C	RAILWAY CARS/ENG	326	200000	STEAM	20	173	75000	200988	306000	105012
0065	B-2	PROV HARDWARE MF	HARDWARE MANUFAC	309-S/306	8000	STEAM	25	75	20000	18000	50000	32000
0066	F	DAVIDSON & DORAN	MACHINE SHOP	315-E/315	15000	STEAM	15	47	11000	11100	40000	28900
0066	G	CHOWN & CUNNINGHA	STOVE/IRON FOUND	307-S/304	25000	STEAM	15	42	15000	11200	32500	21300
0066	D	BROWN EDWIN & CO	TIN/COPPERSMITH	304-T	5000		.	16	4800	10550	20000	9450
0066	D	MCKELVEY JOHN & C	TIN/COPPERSMITH	304-T	700		.	12	3900	5500	10000	4500
0066	D	DORSEY RICHARD	TIN PLATE WORKER	304-T	750		.	8	1800	2810	6000	3190
0066	F	BROKESHIRE JOHN	PUMP FACTORY	315-P	1500		.	6	2347	1300	6000	4700
0066	D	SHIELDS JOHN	TINSMITH	304-T	300		.	6	2210	1500	5000	3500
0066	B	BROWN & JOHNSTON	FOUNDRY	311/315	3000	STEAM	10	8	2000	2000	4130	2130
0066	G	MCEWEN DANIEL & S	BOILERS/BLACKSMI	301/327	1000	STEAM	6	8	1800	1500	4000	2500
0066	D	SKINNER JAMES A	WHITESMITH	309	500		.	4	1400	600	2500	1900
0066	G	CHOWN SARAH & SON	TIN/IRON/COPPER	304-T	300		.	4	800	1000	2500	1500
0065	A-1	WALKER GEORGE	CARPENTER SHOP	315/311	1000	HORSE	4	2	400	150	2000	1850
0066	G	ALLEN WILLIAM	TIN/COPPER/IRONS	304-T	200		.	4	858	800	2000	1200
0064	I-1	SMITH IRA	BLACKSMITH FORGE	311/329	45		.	2	600	300	1225	925
0064	J-1	CHOWN LEWIS	TIN SHOP	304-T	300		.	1	300	500	1000	500
0066	E	O'MARA MICHAEL	BLACKSMITH SHOP	309	100		.	2	450	100	1000	900
0064	J-1	WATERS BUCKLEY	WHEEL/REEL FACTO	315-H/259-W	600	WIND	6	1	400	50	460	410
0065	A-2	TOWNSEND ROBERT	TINSMITH SHOP	304-T	300		.	2	350	30	450	420
0064	J-2	GUTHRIE WALTER	SPINNING MACHINE	315-H	400	HORSE	1	3	150	30	320	290
0064	J-2	GUTHRIE WALTER	WINDOW BLINDS	309	100	HORSE	1	1	50	20	100	80
0064	J-2	WRIGHT JAMES	TURNING LATHE	315-H/261	80	WATER	1	1	40	10	60	50
					264175							
					104	428	145655	270038	497245	227207		

FRONTENAC COUNTY: SHIP- AND BOAT-BUILDING, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	F	POWER WILLIAM & C	SHIP YARD	327	35000	STEAM	25	68	21500	12000	40000	28000
0065	C	CALVIN & BRECK	SHIP BUILDING ES	327	8000		.	39	10000	15600	30000	14400
0066	F	GILDERSLEEVE C F	IRON/MACHINERY W	327-M	5000	STEAM	8	41	10000	9500	30000	20500
0065	B-1	PORTSMOUTH RAILWA	RAILWAY SHOP	327	5000	HORSE	4	20	6000	2550	10000	7450
0066	F	O'GORMAN MICHAEL	BOAT BUILDING ES	328	1650		.	6	2300	200	2500	2300
0066	G	MILLER JOHN	SHIP CARPENTER	327	400	HORSE	1	4	637	300	1437	1137
0065	D-2	SMETHERS WILLIAM	BOAT SHOP	328	140		.	2	500	100	790	690
0065	E-2	KNAPP WILLIAM	BOAT BUILDING ES	328	200		.	2	600	220	760	540
0065	E-2	TESDELL ALEX	BOAT BUILDING ES	328	160		.	1	400	140	540	400
0065	E-2	SHARNAN JACOB	JOINER/BOATBUILD	328	100		.	2	320	175	510	335
0065	E-2	KNAPP JAMES	BOAT BUILDING SH	328	100		.	1	300	150	500	350
0066	F	MCCORKILL JOHN	BOAT BUILDING ES	328	600		.	3	365	36	500	464
					56350							
					38	189	52922	40971	117537	76566		

FRONTENAC COUNTY: CARRIAGE AND WAGON MAKERS, 1871

CDID	CED	PROPRIOR	TYPEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	B	MCRAE	THOMAS	CARRIAGE FACTORY 329	3000		.	12	3450	1550	6600	5050
0066	B	JENKINS	JOHN	CARRIAGE FACTORY 329	1400		.	8	2800	1130	4295	3165
0066	C	KEMP	GEORGE	CARRIAGEMAKER 329	1500		.	6	2000	90	2200	2110
0066	G	KANE DENNIS		CARRIAGE/SLEIGH 329	200		.	3	900	1400	2000	600
0066	G	MCDERMOTT JOHN		CARRIAGEMAKER 329	500		.	3	940	2000	2000	1200
0064	I-1	PHILLIPS ABRAHAM		CARRIAGE FACTORY 329	300		.	3	625	226	1950	1724
0065	D-2	CALLAMACH DONALD		CARRIAGE SHOP 329	100		.	2	964	100	1600	1500
0065	D-2	DAVES JOSEPH		WAGON SHOP 329	450	HORSE	2	2	800	1200	1500	300
0064	I-1	DECKS WILLIAM		BLACKSMITH FORGE 329	400		.	2	550	600	1300	700
0065	A-3	SANSON WILLIAM		WAGONMAKER 329	200		.	1	300	800	1300	500
0065	A-1	JACQUITH EDWARD		BLACKSMITH/WAGON 329	600		.	4	1100	120	1200	1080
0064	I-1	CLARK WARREN		CARRIAGE FACTORY 329	30		.	2	300	480	1050	570
0065	A-2	LENORD NATHANIEL		WHEELWRIGHT 329	400		.	2	600	255	1000	745
0065	F-2	SHANNON & MACMILL		WAGON/SLEIGH FAC 329	300		.	2	675	197	980	783
0066	C	CASWELL ROBERT		CARRIAGEMAKER 329	200		.	4	600	72	940	868
0064	J-1	MCCONNEL ROBERT		BLACKSMITH FORGE 329	150		.	2	500	260	800	540
0065	A-3	JACKSON WILLIAM		CARRIAGEMAKER 329	750		.	2	450	260	800	540
0065	F-2	CAVELY SAMUEL		BLACKSMITH SHOP 329	250		.	2	450	300	760	460
0065	F-1	KNIFFEN THOMAS		WAGON/SLEIGH FAC 329	100		.	1	200	150	700	550
0064	J-1	LAWSON FREDERICK		CARRIAGE FACTORY 329	400		.	1	300	80	650	570
0065	E-2	ALLEN THOMAS		WAGON SHOP 329	100		.	2	420	150	600	450
0065	F-1	GAY ROBERT		WHEELWRIGHT SHOP 329	400		.	1	300	200	600	400
0064	J-1	HALEY JAMES		BLACKSMITH SHOP 329	50		.	1	300	75	520	445
0065	A-3	JACKSON SIMON		WAGONMAKER 329-P	100		.	1	360	45	450	405
0064	J-1	VALASTINE LAMBER		CARRIAGE FACTORY 329	100		.	2	110	60	400	340
0065	F-2	WALKER DAVID		WAGON/SLEIGH FAC 329	150		.	2	812	132	400	268
0065	A-2	PURDY DAVID		WAGON/CARRIAGE S 329	500		.	1	200	100	350	250
0064	I-1	CLARK LESTER		CARRIAGE FACTORY 329	100		.	2	200	100	300	200
0064	J-1	JACQUITH WILLIAM		CARRIAGE FACTORY 329	200		.	1	200	32	250	218
0064	J-1	WILLIAMS CORNELIU		WAGON SHOP 329	100		.	1	150	6	250	244
					13030				21556	10970	37745	26775
						2	78					

FRONTENAC COUNTY: CHEMICAL ESTABLISHMENTS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	F	ROBERTSON BENJAMI	SOAP FACTORY	376	5000	STEAM	10	10	3200	50000	60000	10000
0066	G	ROURKE JOHN	POTASH/SOAP MF	378-P/376	5000	STEAM	6	9	3120	8700	16800	8100
0066	G	PHIPPEN SAMUEL	POTASH/SOAP MF	378-P/376	1200	STEAM	6	5	1400	2700	5800	3100
0066	B	HENDRY ROBERT	SOAP/CANDLE FACT	376	4000			4	700	3000	4100	1100
0066	D	MEADOWS BENJAMIN	SOAP/CANDLEMAKER	376	800			2	600	3000	4100	1100
0066	G	MCCUTCHEON THOMAS	POTASH MANUFACTO	378-P	3000			2	624	1200	3860	2660
0066	E	ROBINSON WILLIAM	PAINT SHOP	375	300			5	1800	540	3000	2460
0066	E	PHIPPEN BETSY	SOAP/CANDLE FACT	376	1200			3	410	1300	2000	700
0066	D	KING JOSEPH	DRUGGIST	374	500			2	320	400	1260	860
0066	C	SMITH JAMES	POTASH MANUFACTO	378-P	200			2	500	350	960	610
0066	E	SHAW JAMES	SOAP/CANDLE FACT	376	400			1	400	400	820	420
0064	I-1	STEWART SAMUEL	POTASH MANUFACTO	378-P	400			2	80	300	720	420
0065	E-2	BYRNE EDWARD	POTASH WORKS	378-P	100			1	125	200	500	300
0064	I-1	LOTT GEORGE	POTASH FACTORY	378-P	200			1	100	260	390	130
					22300		22	49	13379	72350	104310	31960

FRONTENAC COUNTY: MUSICAL INSTRUMENTS MAKERS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	G	ROWLANDS & HOFER	PIANO MANUFACTOR	399-P	5000	STEAM	10	54	24000	50000	56250	6250
0066	G	RAPPE CHARLES	PIANO MANUFACTUR	399-P	1500			13	900	10000	15000	5000
0066	D	REYNER JOSEPH & C	MELODEON/ORGANMA	399-P	500			11	4000	2000	7500	5500
					7000		10	78	28900	62000	78750	16750

FRONTENAC COUNTY: BUILDING CONTRACTORS AND TRADESMEN, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	B-2	PENITENTIARY	STONE MASONRY	421-S/353	1			116	13570	2512	17266	14754
0065	B-2	PENITENTIARY	CARPENTER/PAINT	421-C/421-D		STEAM	20	26	4030	5200	12500	7300
0066	E	TOSSILL RICHARD	BUILDER/STONECUT	421-S/353	3000	HORSE	8	18	6040	1350	12000	10650
0066	C	DAVIDSON ANDREW	CARPENTER/BUILD	421-C	400			10	4000	1000	10000	9000
0065	B-1	CAMERON & MUDIE	CARPENTER SHOP	421-C	4000			8	2750	2870	7000	4130
0066	B	JENKINS SAMUEL	CARPENTER SHOP	421-C	50			4	1000	1000	2500	1500
0066	C	MASSEY WILLIAM	CARPENTER/BUILD	421-C	1000	STEAM	8	6	900	500	2000	1500
0066	F	MCMAHON JOHN	CARPENTER SHOP	421-C	1000			5	1500	2000	2000	1800
0066	F	LAVAGE THOMAS & S	PAINT SHOP	421-D	600			6	800	751	2000	1249
0066	F	WILLIAMSON & WELC	CARPENTER SHOP	421-C	400			4	1200	250	2000	1750
					10451		36	203	35790	15633	69266	53633

FRONTENAC COUNTY: BLACKSMITHS, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0055	B-2	PENITENTIARY	BLACKSMITH SHOP	896	.	STEAM	20	16	3035	2718	5734	3016
0066	C	WILMOT NATHANI	BLACKSMITH SHOP	896	300		.	4	1000	400	2000	1600
0066	G	TRACY FRANCIS	BLACKSMITH	896	1000	STEAM	6	6	1000	350	2000	1650
0065	A-3	POPE JOHN	BLACKSMITH FORGE	896	300		.	2	600	400	1600	1200
0066	G	DOUGHERTY PATRICK	BLACKSMITH	896	150		.	3	670	120	1290	1170
0064	I-2	BARTRAM JOHN	BLACKSMITH SHOP	896	80		.	1	313	75	1000	925
0065	A-2	LENORD HIRAM	BLACKSMITH SHOP	896	100		.	2	600	60	1000	940
0065	A-3	DENIE JAMES	BLACKSMITH FORGE	896	200		.	1	490	300	1000	700
0065	A-4	WILSON ALEXANDER	BLACKSMITH SHOP	896	200		.	2	600	150	1000	850
0065	D-2	MACAVERY PATRICK	BLACKSMITH FORGE	896	100		.	2	900	100	1000	900
0065	D-2	DAVES GILLEM	BLACKSMITH FORGE	896	150		.	3	800	100	1000	900
0065	D-2	LEARUGH EDWARD	BLACKSMITH FORGE	896	200		.	2	600	300	1000	700
0065	E-3	MCILGORM ROBERT	BLACKSMITH SHOP	896	150		.	2	700	200	1000	800
0065	F-1	HURLEY EDWARD L	BLACKSMITH FORGE	896	.		.	1	400	400	1000	600
0064	H	STEELE JOHN	BLACKSMITH	896	200		.	2	360	220	900	680
0064	I-2	PERCY JOHN	BLACKSMITH SHOP	896	280		.	1	260	300	800	500
0065	A-1	RILEY EDWARD	BLACKSMITH FORGE	896	200		.	2	400	160	800	640
0065	A-2	MCDONALD WILLIAM	BLACKSMITH SHOP	896	400		.	3	600	80	800	720
0065	F-1	MORROW GEORGE	BLACKSMITH FORGE	896	.		.	1	300	400	800	400
0064	I-1	RUSSELL WILLIAM	BLACKSMITH FORGE	896	60		.	1	300	400	700	300
0064	K	BOTHEY BENJAMIN	BLACKSMITH SHOP	896	100		.	1	350	54	700	646
0065	F-1	TERPELL NATHANIEL	BLACKSMITH FORGE	896	.		.	1	400	240	660	420
0064	I-2	SMITH JAMES	BLACKSMITH SHOP	896	75		.	1	313	250	656	406
0065	A-4	HUSE EDWARD	BLACKSMITH	896	100		.	1	400	215	650	435
0064	I-1	POULEY MATTHEW	BLACKSMITH FORGE	896	100		.	1	500	60	600	540
0064	I-1	BLACKHUST JAMES	BLACKSMITH FORGE	896	300		.	1	300	200	600	400
0064	J-2	RUSS SAMUEL	BLACKSMITH	896	100		.	1	500	10	600	590
0065	F-1	JACKSON REUBEN F	BLACKSMITH FORGE	896	150		.	1	400	160	600	440
0065	F-2	HEWTON ROBERT	BLACKSMITH SHOP	896	150		.	2	420	100	600	500
0066	C	JENKINS EDWARD	BLACKSMITH	896	100		.	2	60	200	600	400
0065	E-2	BRYANT JAMES	BLACKSMITH FORGE	896	400		.	2	400	86	560	474
0064	J-1	BUCK ALBERT	BLACKSMITH SHOP	896	100		.	2	400	210	500	290
0064	J-1	HEALEY MAURICE ?	BLACKSMITH SHOP	896	100		.	1	250	60	500	440
0065	E-2	ESFORD THOMAS	SMITH FORGE	896	150		.	2	400	46	460	414
0064	J-2	SEARS WILLIAM	BLACKSMITH FORGE	896	100		.	1	300	10	400	390
0065	E-2	MAGOR WILLIAM	BLACKSMITH SHOP	896	100		.	1	300	100	400	300
0064	G	BROWN JOSEPH	BLACKSMITH SHOP	896	100		.	1	50	14	300	286
0065	F-2	NOBS GEORGE	BLACKSMITH SHOP	896	140		.	1	96	23	300	277
0064	K	NASBET JOHN	BLACKSMITH SHOP	896	100		.	1	100	50	200	150
0065	E-3	REYNOLDS JOHN	BLACKSMITH SHOP	896	60		.	1	160	15	200	185
					6595				2027	9336	36510	27174
						26	82					

Table A-5: Frontenac County: Firms Using Inanimate Power, 1871

FRONTENAC COUNTY: FIRMS REPORTING INANIMATE POWER, 1871

CDID	CED	PROPRIOR	TYPEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUNRAWC	SUMPROC	VADD
0064	I-2	PAWLEY WILLIAM	SAW MILL	251	2000	WATER	300	16	2000	2800	5600	2800
0065	E-3	ANGLIN ROBERT	SAW MILL	251	2000	WATER	150	6	1800	5000	8000	3000
0065	E-2	SMITH EDWARD	GRIST MILL	105	6000	WATER	80	2	692	9500	11300	1800
0065	F-2	HOPPINS ABRAM	SAW/SHINGLE MILL	251/251-S	15000	WATER	50	7	1800	4250	7050	2800
0065	F-2	HAMILTON H & C	TANNERY	172	31000	WATER	50	22	7209	60000	108000	48000
0065	F-2	FOSTER THOMAS	GRIST MILL	105	8000	WATER	45	2	620	29000	34270	5270
0065	F-3	WARREN L M	SAW MILL	251	2000	WATER	45	6	600	1000	1600	600
0064	K	WARREN L M	SAW/SHINGLE MILL	251/251-S	5000	STEAM	40	40	6000	14000	36800	22800
0064	K	HARRIS JOHN	SAW MILL	251	3000	WATER	40	8	500	1250	2500	1250
0065	A-1	FIRDGER WILLIAM	TANNERY	172	8000	STEAM	40	20	7000	25360	36155	10795
0065	E-2	MCROSSIE W	SAW/SHINGLE MILL	251/251-S	20000	STEAM	40	20	4000	16000	24000	8000
0065	A-2	BOWERMAN & MORGAN	GRIST MILL	105	4000	WATER	35	2	700	15000	16220	1220
0064	H	LOTT GEORGE	SAW MILL	251	700	WATER	30	6	180	600	1050	450
0064	H	DUFFIN DUMAS	SAW/SHINGLE MILL	251/251-S	1500	WATER	30	3	150	100	440	340
0064	J-1	DAVY ADAM	SAW MILL	251	1000	WATER	30	2	300	900	1600	700
0065	A-1	MCGUIN ANTHONY	FLLOUR/FEED MILL	105	6000	WATER	30	2	800	6000	7000	1000
0065	A-1	MCGUIN ANTHONY	SAW MILL	251	200	WATER	30	1	200	200	400	200
0065	D-2	GOING S & H & CO	GRIST/FLLOUR MILL	105	6000	STEAM	30	2	1000	60000	66000	6000
0065	F-2	VANLUVIN HENRY	GRIST MILL	105	10000	WATER	30	2	650	8500	9200	700
0064	L	FANSET ACE	SHINGLE MILL	251-S	1400	WATER	25	6	588	600	1275	675
0065	B-2	PROV HARDWARE MF	HARDWARE MANUFAC	309-S/306	8000	STEAM	25	75	20000	18000	50000	32000
0065	E-3	KIRKWOOD ALEXANDE	SAW MILL	251	1150	STEAM	25	4	312	1000	1600	600
0065	F-2	FOSTER THOMAS	CARDING/SPINNING	189-W/189-S	6000	WATER	25	6	800	5000	6600	1500
0065	F-2	THORN & ANGLIN	SAW MILL	251	2000	WATER	25	4	960	1300	4400	3100
0065	F-3	YOUNG WILLIAM	SAW MILL	251	1000	WATER	25	2	400	450	1050	600
0066	F	POWER WILLIAM & C	SHIP YARD	327	35000	STEAM	25	68	21500	12000	40000	28000
0066	G	ANGLIN & HARTNER	SAW MILL	251	7000	STEAM	25	7	858	3900	5616	1716
0065	F-3	GUTHRIE WILLIAM	SAW MILL	251	1000	WATER	22	2	200	250	480	230
0064	G	WILLIAMS JAMES	SAW MILL	251	500	WATER	20	1	200	400	980	580
0064	G	NEWTON RICHARD	SAW MILL	251	500	WATER	20	1	150	375	800	425
0064	I-2	PIERCE JOSHUA R	FLLOUR MILL	105	100	WATER	20	1	130	60	190	130
0064	I-2	VENNET PETER	SAW MILL	251	600	WATER	20	3	104	250	600	350
0064	I-2	BOYCE N R	CARDING MILL	189-W	600	WATER	20	2	144	1200	1400	200
0064	J-1	MACE WILLIAM	GRIST MILL	105	2000	WATER	20	1	240	2500	3600	1100
0064	J-1	WOOD JAMES	SHINGLE MILL	251-S	2500	WATER	20	7	1572	3200	7000	3800
0064	J-2	HENRY DAVID	SAW MILL	251	80	WATER	20	2	20	100	160	60
0064	J-2	REA WILLIAM	SAW MILL	251	150	WATER	20	1	30	200	240	40
0064	M	BOWERMAN JAMES	SAW MILL	251	800	WATER	20	1	140	300	720	420
0065	A-2	LENORD NATHANIEL	SAW MILL	251	500	WATER	20	2	180	300	660	360
0065	B-2	PENITENTIARY	CABINET MANUFAC	261	12000	STEAM	20	50	5400	20000	30000	10000
0065	B-2	PENITENTIARY	CARPENTER/PAINTER	421-C/421-D	.	STEAM	20	26	4030	5200	12500	7300
0065	B-2	PENITENTIARY	BLACKSMITH SHOP	896	.	STEAM	20	16	3035	2718	5734	3016
0065	F-2	HEWTON WILLIAM	WOOLEN FACTORY	182	9000	WATER	20	12	1600	6000	10500	4500
0065	F-2	JACKSON JOHN	SAW MILL	251	1000	WATER	20	2	420	500	1200	700
0066	F	CANADIAN ENGINE C	RAILWAY CARS/ENG	326	200000	STEAM	20	173	75000	200988	306000	105012
0064	J-2	SMYTH GEORGE	SAW MILL	251	12000	WATER	18	3	170	450	2400	1950
0065	A-2	BOWERMAN & MORGAN	SAW MILL	251	400	WATER	18	3	204	400	800	400
0065	A-4	WARTMAN BARNABAS	SHINGLE FACTORY	251-S	800	STEAM	18	6	194	300	1700	1400
0065	F-2	CHAPMAN JOHN	SHINGLE MILL	251-S	1400	WATER	18	1	200	450	1125	675
0064	I-1	WALSORTH HENRY	SHINGLE FACTORY	251-S	1500	STEAM	16	6	1000	1500	5000	3500
0064	J-1	MURDY LEWIS	SAW MILL	251/251-S	2000	STEAM	16	5	1200	1800	5100	3300
0064	J-2	MARTIN CHARLES	SHINGLE FACTORY	251-S	1000	STEAM	16	4	900	825	2160	1335
0064	J-2	MARTIN CHARLES	SAW MILL	251	600	STEAM	16	1	60	420	480	60
0065	F-1	PERRY GEORGE	SAW MILL	251	1000	WATER	16	1	300	1000	1500	500

FRONTENAC COUNTY: FIRMS REPORTING INANIMATE POWER, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FTXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	F-2	HAMILTON H & C	TANNERY	172	5000	WATER	16	3	896	18900	26380	7480
0064	H	CARROLL JOHN	SAW MILL	251	400	WATER	15	2	40	75	140	65
0064	I-1	DAY ABSALOM	SHINGLE FACTORY	251-S	1000	STEAM	15	7	928	480	1562	1082
0064	K	CHAFFEY JOHN	GRIST MILL	105	2000	WATER	15	2	500	450	1000	550
0065	B-1	CARRUTHERS I & CO	TANNERY	172	20000	STEAM	15	18	5000	30000	45000	15000
0066	F	DAVIDSON & DORAN	MACHINE SHOP	315-E/315	15000	STEAM	15	47	11000	11100	40000	28900
0066	G	CHOWN & CUNNINGHAM	STOVE/IRON FOUND	307-S/304	25000	STEAM	15	42	15000	11200	32500	21300
0065	A-2	GIBSON JAMES	SAW MILL	251	400	WATER	14	2	40	150	200	50
0064	I-2	CAMPSALL BENJAMIN	SHINGLE FACTORY	251-S	2000	STEAM	12	5	600	1200	3800	2600
0064	I-2	CAMPSALL BENJAMIN	SAW MILL	251	300	STEAM	12	2	200	180	480	300
0064	K	TAGGART JOSEPH	SAW MILL	251	400	WATER	12	1	40	100	200	100
0064	K	BATTING BENJAMIN	SAW MILL	251	400	WATER	12	1	46	150	300	150
0064	K	YOUNG JAMES	SAW MILL	251	500	WATER	12	2	100	300	450	150
0064	K	ASSETTINE WILLIAM	SAW MILL	251	400	WATER	12	2	100	750	950	200
0065	F-2	MILLER WILLIAM	SAW MILL	251	500	WATER	12	2	148	150	400	250
0066	F	KINGSTON WATER WO	WATER WORKS	576	125000	STEAM	12	9	9000	4000	15000	11000
0064	J-2	AVREY PETER	SAW MILL	251	200	WATER	10	1	45	300	400	100
0064	K	BABCOCK JAMES	SAW MILL	251	350	WATER	10	1	175	300	500	200
0066	A	LIVINGSTON A & CO	BREWERY	109-B	15000	STEAM	10	6	2700	13940	26200	12260
0066	B	BROWN & JOHNSTON	FOUNDRY	311/315	3000	STEAM	10	8	2000	2000	4130	2130
0066	F	ROBERTSON BENJAMIN	SOAP FACTORY	376	5000	STEAM	10	10	3200	50000	60000	10000
0066	G	ROWLANDS & HOFER	PIANO MANUFACTOR	399-P	5000	STEAM	10	54	24000	50000	56250	6250
0064	F	SNIDER CHARLES S	SAW MILL	251	2000	WATER	8	2	192	600	1000	400
0064	F	SNIDER CHARLES S	MARBLE MILL	353	25	WATER	8	3	25	40	75	35
0064	J-1	RICHARDSON WILLIA	CARDING/FULLING	189-W	1000	WATER	8	3	400	1000	1800	800
0066	C	MASSEY WILLIAM	CARPENTER/BUILD	421-C	1000	STEAM	8	6	900	500	2000	1500
0066	D	MCDERMOTT PATRICK	CABINETMAKER	261	1200	STEAM	8	3	827	120	1200	1080
0066	E	IRVING W & J	SASH/DOOR FACTOR	254	8500	STEAM	8	12	3000	2500	6000	3500
0066	F	GRAY DAVID	PLANING MILL	251	1000	STEAM	8	2	325	200	1980	1780
0066	F	GILDERSEEEVE C F	IRON/MACHINERY W	327-M	5000	STEAM	8	41	10000	9500	30000	20500
0065	B-1	FISHER JAMES & SO	BREWERY	109-B	10000	STEAM	6	4	1400	4746	13600	8854
0065	D-2	BARETT GEORGE	CHEESE FACTORY	104	1700	STEAM	6	2	250	3400	4000	600
0066	G	HUTCHINSON/CROTHER	BAKERY/CONFECTIO	107/108-C	1200	STEAM	6	6	2184	8882	13566	4684
0066	G	TRACY FRANCIS	BLACKSMITH	896	1000	STEAM	6	6	1000	350	2000	1650
0066	G	BAJUS JACOB ?	BREWER	109-B	16000	STEAM	6	5	2028	6750	14000	7250
0066	G	ROURKE JOHN	POTASH/SOAP MF	378-P/376	5000	STEAM	6	9	3120	8700	16800	8100
0066	G	PHIPPEN SAMUEL	POTASH/SOAP MF	378-P/376	1200	STEAM	6	5	1400	2700	5800	3100
0066	G	MCEWEN DANIEL & S	BOILERS/BLACKSMI	301/327	1000	STEAM	6	8	1800	1500	4000	2500
0064	G	JAMAIRO THOMAS	CABINET/TURNING	261	100	WATER	4	1	200	17	300	283
0065	D-2	BENNETT TRUEMAN	CHEESE FACTORY	104	1200	STEAM	4	2	300	3200	4280	1080
0066	F	KARCH ANTOINE	SPICE MILL	108	2500	STEAM	4	2	800	8000	9500	1500
0065	A-2	BOWERMAN & MORGAN	CARDING MILL	189-W	1500	WATER	3	1	104	720	970	250
0065	D-2	DAYES JOHN	CHEESE FACTORY	104	500	STEAM	2	2	150	1061	1374	313
0064	J-2	WRIGHT JAMES	TURNING LATHE	315-H/261	80	WATER	1	1	40	10	60	50
0064	I-1	CHARLTON ALEXANDE	SAW MILL	251	200	WATER	.	2	36	200	360	160
0064	I-1	LOTT GEORGE	SAW MILL	251	2000	WATER	.	10	1600	2500	5000	2500
0064	I-1	LOTT GEORGE	FLOUR MILL	105	6000	WATER	.	2	650	7000	10000	1000
0064	I-1	LOTT GEORGE	CARDING/FULLING	189-W	1000	WATER	.	1	300	600	900	300
0064	K	CHAFFEY JOHN	SAW MILL	251	6000	WATER	.	48	6000	12500	20000	7500
0064	O	FISHER F	SAW MILL	251	300	WATER	.	1	300	150	500	350
0064	O	PLAYFAIR ELISHA	SAW MILL	251	600	WATER	.	1	200	109	400	291
0064	O	PLAYFAIR ELISHA	GRIST MILL	105	600	WATER	.	1	200	3000	3500	500
0065	A-4	WARTMAN PETER	SAW MILL	251	400	WATER	.	2	200	75	300	225
										838751	1378862	540111
										740835		
										2245	1095	294131

Table A-6: Frontenac County: Firms Employing at least Two Females in 1871

FRONTENAC COUNTY: FIRMS EMPLOYING AT LEAST TWO WOMEN IN 1871												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	FEMALE	WAGES	SUMRAWC	SUMPROC	VADD
0065	B-2	PENITENTIARY	FEMALE DEPTMEN	239-K	.	.	.	45	2412	1320	3400	2080
0066	D	MCAUGHTON JOHN &	CLOTHIER	242	200	.	.	18	8000	12000	26000	14000
0066	D	MOORE THOMAS	MERCHANT TAILOR	242	600	600	.	16	5000	27000	33750	6750
0066	E	FAHEY MICHAEL	CLOTHES	242	5000	.	.	11	3408	7500	11000	3500
0066	D	KINNEAR ELIZABE	MILLINER	249-M	300	300	.	10	800	2500	4000	1500
0066	C	ANDERSON ELIZABE	DRESSMAKING	244	100	100	.	8	600	3000	3700	700
0066	D	HAY WILLIAM	MERCHANT TAILOR	242	200	200	.	8	3000	11250	16000	4750
0066	D	SEALE THOMAS	CLOTHIER	242	350	350	.	8	4000	9000	14000	5000
0066	F	SPRIGGS MRS	DRESS MAKING EST	244	200	.	.	8	314	3455	4160	705
0066	D	MCKAY DONALD	MERCHANT TAILOR	242	100	100	.	6	1200	6000	8000	2000
0066	D	DOYLE JOANNA & C	MILLINERY	249-M	100	100	.	6	400	3000	4000	1000
0066	D	ROSS ALEXANDER	MILLINERY	249-M	100	100	.	6	850	4500	6000	1500
0066	D	DORAN B & CO	MILLINERY	249-M	100	100	.	6	535	10000	12000	2000
0066	D	BARKER EDWARD	PRINTING OFFICE	289	5000	5000	.	6	3640	2000	9000	7000
0066	D	ANDREWS GEORGE	MERCHANT TAILOR	242	1000	1000	.	6	3120	1000	5000	4000
0066	D	ANGLIN CECILIA	MILLINER	249-M	200	200	.	6	500	2500	4000	1500
0066	D	THOMPSON ADAM	MERCHANT TAILOR	242	.	.	.	6	1600	3000	5600	2600
0066	F	MCELROY MRS	DRESSMAKER/MILLI	244	.	.	.	6	900	2625	3550	925
0065	F-2	HEWTON WILLIAM	WOOLEN FACTORY	182	9000	WATER	20	5	1600	6000	10500	4500
0066	C	ROSE ANN	DRESSMAKER	244	100	100	.	5	400	2000	3000	1000
0066	D	SANDS JOHN	MERCHANT TAILOR	242	200	200	.	5	2080	3000	5700	2700
0066	F	MCTHEEVER MISS	DRESS MAKING EST	244	.	.	.	5	500	1560	2060	500
0066	D	LIVINGSTON CHARLE	MERCHANT TAILOR	242	100	100	.	4	1000	2000	4000	2000
0066	D	CONLEY THOMAS	MERCHANT TAILOR	242	100	100	.	4	1040	3000	5250	2250
0066	D	LEVEY ARNOLD	CLOTHIER	242	500	500	.	4	750	3000	4700	1700
0066	D	WRIGHT CLARK	HATTER/FURRIER	246	300	300	.	4	1759	5500	12000	6500
0066	F	FAWCETT MRS	DRESS MAKING EST	244	.	.	.	4	300	1248	1548	300
0066	F	FAHEY MISS R	DRESS MAKING EST	244	.	.	.	4	312	1170	1482	312
0066	F	LAVERY MISS	DRESS MAKING EST	244	.	.	.	4	416	1248	1664	416
0064	M	COLEMAN GODFREY	MITTEN MANUFACTO	175	.	.	.	3	35	18	93	75
0064	M	DUSHANE MRS	WEAVING SHOP	182-W	20	20	.	3	90	124	220	96
0065	F-1	DAFF WILLIAM	CHEESE FACTORY	104	700	700	.	3	240	1620	1860	240
0066	C	HAILEY B & CO	BRUSH FACTORY	399-B	400	400	.	3	3250	600	6500	5900
0066	C	BABCOCK CATHERI	DRESSMAKER	244	100	100	.	3	200	1000	1500	500
0066	D	BUTTUN HARRIET	MANTLEMAKER	244	100	100	.	3	300	10	400	390
0064	M	COX MARY	WEAVING SHOP	182-W	20	20	.	2	60	147	300	153
0064	M	WEAGER MRS P	WEAVING SHOP	182-W	20	20	.	2	70	302	524	222
0065	A-1	NORTHMORE JOSEPH	BAKERY	107	1000	1000	.	2	1600	7800	9600	1800
0065	A-3	STAGGS JOHN W	CLOTH MANUFACTO	182-W	40	40	.	2	750	1500	2600	1100
0065	A-4	DAVID MOSES	HANDLOOM	182-W	30	30	.	2	200	700	1000	300
0065	F-2	FOSTER THOMAS	CARDING/SPINNING	189-W	6000	WATER	25	2	800	5000	6600	1600
0065	F-2	CARSON WILLIAM	WEAVER	182-W	60	60	.	2	340	677	1090	413
0066	C	JOHNSTON THOMAS	CONFECTIONER	108-C	300	300	.	2	400	1625	3000	1375
0066	C	TIPSON ANDREW	TAILOR	243	300	300	.	2	240	2080	3120	1040
0066	C	SHERLOCK JOHN M	TAILOR	175	100	100	.	2	500	2500	3500	1000
0066	D	MCKAY JOHN	GLOVEMAKER	175	90	90	.	2	260	240	600	360
0066	D	LACEY W P & CO	MILLINERY	249-M	40	40	.	2	200	3000	4000	1000
0066	D	SLAVIN JAMES	MERCHANT TAILOR	242	75	75	.	2	1600	3500	6000	2500
0066	E	DOHERTY JAMES	BOOT/SHOEMAKER	174	100	100	.	2	600	515	1215	700
0066	E	SMITH ALEXANDER	BOOTS/SHOES	174	500	500	.	2	1400	2500	4000	1500
0066	G	GROH WILLIAM	FURRIER	246	10	10	.	2	376	5000	7500	2500
					33755				63947	181834	290286	108452

Table A-7: Frontenac County: Firms Employing at least 25 or Reporting at least \$25,000 Output in 1871

FRONTENAC COUNTY: FIRMS WITH 25+ WORKERS OR \$25000 + OUTPUT												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	F	CANADIAN ENGINE C	RAILWAY CARS/ENG	326	200000	STEAM	20	173	75000	200988	306000	105012
0065	C	CALVIN & BRECK	RAFT BUILDING	031	32000		.	156	40000	22400	150000	127600
0065	B-2	PENITENTIARY	BOOT/SHOE MF	174	50000		.	125	15000	.	150000	.
0065	B-2	PENITENTIARY	STONE MASONRY	421-S/353	8000	STEAM	25	116	13570	2512	17266	14754
0065	B-2	PROV HARDWARE MF	STONE MASONRY	421-S/306	35000	STEAM	25	75	20000	18000	50000	32000
0066	F	POWER WILLIAM & C	SHIP YARD	327	12000	STEAM	25	68	21500	12000	40000	28000
0066	G	ROWLANDS & HOFER	PIANO MANUFACTOR	399-P	5000	STEAM	10	54	24000	50000	56250	6250
0065	B-2	PENITENTIARY	CABINET MANUFACT	261	12000	STEAM	20	50	5400	20000	30000	10000
0064	K	CHAFFEY JOHN	SAW MILL	251	6000	WATER	.	48	6000	12500	20000	7500
0066	F	DAVIDSON & DORAN	MACHINE SHOP	315-E/315	15000	STEAM	15	47	11000	11100	40000	28900
0065	B-2	PENITENTIARY	FEMALE DEPARTMEN	239-K/244	.		.	45	2412	1320	3400	2080
0066	G	CHOWN & CUNNINGHA	STOVE/IRON FOUND	307-S/304	25000	STEAM	15	42	15000	11200	32500	21300
0066	F	GILDERSLEEVE C F	IRON/MACHINERY W	327-M	5000	STEAM	8	41	10000	9500	30000	20500
0064	K	WARREN L M	SAW/SHINGLE MILL	251/251-S	5000	STEAM	40	40	6000	14000	36800	22800
0065	C	CALVIN & BRECK	SHIP BUILDING ES	327	8000		.	39	10000	15600	30000	14400
0065	B-2	PENITENTIARY	TAILOR SHOP	249	.	STEAM	20	31	2830	4120	6950	2830
0065	B-2	PENITENTIARY	CARPENTER/PAINTE	421-C/421-D	600		.	25	4030	5200	12500	7300
0066	D	MOORE THOMAS	MERCHANT TAILOR	242	31000	WATER	50	22	7209	60000	108000	48000
0065	F-2	HAMILTON H & C	TANNERY	172	200		.	22	8000	12000	26000	14000
0066	D	MCNAUGHTON JOHN &	CLOTHIER	242	8000	STEAM	40	20	7000	25360	36155	10795
0065	A-1	FIRDGER WILLIAM	TANNERY	172	20000	STEAM	15	18	5000	30000	45000	15000
0065	B-1	CARRUTHERS I & CO	TANNERY	172	5000	STEAM	10	10	3200	50000	60000	10000
0066	F	ROBERTSON BENJAMI	SOAP FACTORY	376	15000	STEAM	10	6	2700	13940	26200	12260
0066	A	LIVINGSTON A & CO	BREWERY	109-B	5000	WATER	16	3	896	18900	26380	7480
0065	F-2	HAMILTON H & C	TANNERY	172	5000	WATER	30	2	1000	60000	66000	6000
0065	D-2	GOING S & H & CO	GRIST/FLOUR MILL	105	6000	STEAM	45	2	620	29000	34270	5270
0065	F-2	FOSTER THOMAS	GRIST MILL	105	8000	WATER	45	2	620	29000	34270	5270
					504801				414	1306	322367	586781
									736640	1473421		

Table A-8: Frontenac County excl. Kingston: Firms by Name of Proprietor, 1871

FRONTENAC EXCL. KINGSTON: FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0064	I-1	ABRAMS JOHN	BOOT/SHOE FACTOR	174	20			1	180	189	450	261
0065	E-3	WEAVER	182-W		15			1	120	550	750	200
0065	E-2	ALLEN THOMAS	WAGON SHOP	329	100			2	420	150	600	450
0065	E-3	ANGLIN ROBERT	SAW MILL	251	2000	WATER	150	6	1800	5000	8000	3000
0065	A-2	ASH D	CARPENTER SHOP	259	400			1	300	80	500	420
0064	K	ASSELTIME WILLIAM	SAW MILL	251	400	WATER	12	2	100	750	950	200
0064	J-2	AVREY PETER	SAW MILL	251	200	WATER	10	1	45	300	400	100
0064	K	BABCOCK JAMES	SAW MILL	251	350	WATER	10	1	175	300	500	200
0064	I-1	BAKER IRA	CABINET FACTORY	261/258	400			1	150	220	500	280
0065	D-2	BARETT GEORGE	CHEESE FACTORY	104	1700	STEAM	6	2	250	3400	4000	600
0064	M	BARR EDWARD	MITTEN FACTORY	175/174				2	30	16	53	37
0064	I-2	BARTRAM JOHN	BLACKSMITH SHOP	896	80			1	313	75	1000	925
0064	K	BATTING BENJAMIN	SAW MILL	251	400	WATER	12	1	46	150	300	150
0064	K	BENNETT HENRY ?	COOPER SHOP	259-C	20			1	68	25	100	75
0064	K	BENNETT HENRY	SHOE/BOOTMAKING	174	100			1	100	300	400	100
0065	D-2	BENNETT TRUMAN	CHEESE FACTORY	104	1200	STEAM	4	2	300	3200	4280	1080
0065	D-2	BERRY JOHN	SHOE SHOP	174	50			1	150	100	600	500
0065	D-3	BERRY MARY ANN	WEAVER	182-W	30			1	80	225	360	135
0064	I-1	BLACKHUST JAMES	BLACKSMITH FORGE	896	100			1	300	200	600	400
0064	K	BOTHEY BENJAMIN	BLACKSMITH SHOP	896	100	WATER	35	2	700	15000	16220	1220
0065	A-2	BOWERMAN & MORGAN	GRIST MILL	105	4000			3	204	400	800	400
0065	A-2	BOWERMAN & MORGAN	SAW MILL	251	400	WATER	18	3	104	720	970	250
0065	A-2	BOWERMAN & MORGAN	CARDING MILL	189-W	1500	WATER	3	1	140	300	420	200
0064	M	BOWERMAN JAMES	SAW MILL	251	800	WATER	20	2	144	1200	1400	200
0064	I-2	BOYCE N R	CARDING MILL	189-W	600	WATER	20	1	300	50	400	350
0065	A-2	BRIDGE ANDREW	COOPER SHOP	259-C	100			3	200	40	360	40
0065	E-2	BROWN ALFRED	LIME KILN	358-L	60			1	50	14	300	286
0064	G	BROWN JOSEPH	BLACKSMITH SHOP	896	100			2	400	86	560	474
0065	E-2	BRYANT JAMES	BLACKSMITH FORGE	896	400			2	400	210	500	290
0064	J-1	BUCK ALBERT	BLACKSMITH SHOP	896	100			1	90	200	320	120
0065	D-3	BUCKLEY SUSAN	WEAVER	182-W	15			1	125	200	500	300
0065	E-2	BYRNE EDWARD	POTASH WORKS	378-P	100			2	964	100	1600	1500
0065	D-2	CALLAMACH DONALD	CARRIAGE SHOP	329	100			156	40000	22400	150000	127600
0065	C	CALVIN & BRECK	RAFT BUILDING	031	32000			39	10000	15600	30000	14400
0065	C	CALVIN & BRECK	SHIP BUILDING ES	327	8000			8	2750	2870	7000	4130
0065	B-1	CAMERON & MUDIE	CARPENTER SHOP	421-C	4000			5	600	1200	3800	2600
0064	I-2	CAMPSALL BENJAMIN	SHINGLE FACTORY	251-S	2000	STEAM	12	2	200	180	480	300
0064	I-2	CAMPSALL BENJAMIN	SAW MILL	251	300	STEAM	12	2	200	180	480	300
0064	H	CARROLL JOHN	SAW MILL	251	400	WATER	15	2	40	75	140	65
0065	B-1	CARRUTHERS I & CO	TANNERY	172	20000	STEAM	15	18	5000	30000	45000	15000
0064	I-1	CARSCALLAR PHILLI	HARNESS MANUFACT	179-S	25			1	100	580	900	320
0065	F-2	CARSON WILLIAM	WEAVER	182-W	60			2	340	677	1090	413
0065	F-2	CAVELY SAMUEL	BLACKSMITH SHOP	329	250			2	450	300	760	460
0064	K	CHAFFEY JOHN	SAW MILL	251	6000	WATER		48	6000	12500	20000	7500
0064	K	CHAFFEY JOHN	GRIST MILL	105	2000	WATER	15	2	500	450	1000	550
0065	F-2	CHAPMAN JOHN	SHINGLE MILL	251-S	1400	WATER	18	1	200	450	1125	675
0064	I-1	CHARLTON ALEXANDE	SAW MILL	251	200	WATER		2	36	200	360	160
0064	J-1	CHOWN LEWIS	TIN SHOP	304-T	300			1	300	500	1000	500
0064	I-1	CLARK LESTER	CARRIAGE FACTORY	329	100			2	200	100	300	200
0064	I-1	CLARK WARREN	CARRIAGE FACTORY	329	30			2	300	480	1050	570
0064	M	COLEMAN GODFREY	MITTEN MANUFACTO	175/174				4	35	18	93	75

FRONTENAC EXCL. KINGSTON: FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0064	J-1	COPENGER THOMAS	TAILOR SHOP	243	50			1	75	200	350	150
0065	E-2	COWAN ALEXANDER	CHEESE FACTORY	104	700			2	300	1953	2331	378
0064	M	COX MARY	WEAVING SHOP	182-W	20			2	60	147	300	153
0065	E-2	CRAWFORD JOHN	LIME KILN	358-L	100			2	80	28	120	92
0065	F-1	DALY JAMES	CHEESE FACTORY	104	1200			3	512	3420	4180	760
0065	D-2	DAVES GILLEM	BLACKSMITH FORGE	896	150			3	800	100	1000	900
0065	D-2	DAVES JOHN	CHEESE FACTORY	104	500	STEAM	2	2	150	1061	1374	313
0065	D-2	DAVES JOSEPH	WAGON SHOP	329	450	HORSE	2	2	800	1200	1500	300
0065	A-4	DAVID ISAAC	COOPER SHOP	259-C	60			1	300	30	50	20
0065	A-4	DAVID MOSES	HANDLOOM	182-W	30			3	200	700	1000	300
0064	J-1	DAVID ADAM	SAW MILL	251	1000	WATER	30	2	300	900	1600	700
0065	A-2	DAY & JOHNSTON	BRICK FACTORY	351-B	3000	HORSE	2	8	1600	200	2400	2200
0064	I-1	DAY ABSALOM	SHINGLE FACTORY	251-S	1000	STEAM	15	7	928	480	1562	1082
0064	I-1	DECKS WILLIAM	BLACKSMITH FORGE	329	400			2	550	600	1300	700
0065	A-3	DENIE JAMES	BLACKSMITH FORGE	896	200			1	490	300	1000	700
0064	I-1	DODD DAVID	BOOT/SOUE FACTOR	174	30			1	300	200	568	368
0065	F-1	DUFF WILLIAM	CHEESE FACTORY	104	700			3	240	1620	1860	240
0064	H	DUFFIN DUMAS	SAW/SHINGLE MILL	251/251-S	1500	WATER	30	3	150	100	440	340
0064	M	DUSHANE MRS	WEAVING SHOP	182-W	20			3	90	124	220	96
0064	I-1	EASTON WILLIAM	BARREL/TUB FACTO	259-C	30			1	200	30	400	370
0065	E-2	ESFORD THOMAS	SMITH FORGE	896	150			2	400	46	460	414
0064	L	FANST ACE	SHINGLE MILL	251-S	1400	WATER	25	6	588	600	1275	675
0065	A-1	FIRDGER WILLIAM	TANNERY	172	8000	STEAM	40	20	7000	25360	36155	10795
0064	O	FISHER F	SAW MILL	251	600	WATER	6	4	1400	150	500	350
0065	B-1	FISHER JAMES & SO	BREWERY	109-B	10000	STEAM	6	1	80	4746	13600	8854
0065	D-3	FLYN ELLEN	WEAVER	182-W	20			3	100	225	360	135
0064	J-1	FORTON JAMES	BRICK YARD	351-B	200			3	100	10	120	110
0065	F-2	FOSTER THOMAS	GRIST MILL	105	8000	WATER	45	2	620	29000	34270	5270
0065	F-2	FOSTER THOMAS	CARDING/SPINNING	189-W/189-S	6000	WATER	25	6	800	5000	6600	1600
0065	D-2	FURLONG JAMES	SHOE SHOP	174	100			1	324	100	600	500
0064	J-1	GARYN JAMES	SHOEMAKING	174	40			1	150	300	600	300
0065	F-1	GAY ROBERT	WHEELWRIGHT SHOP	329	400			1	300	200	600	400
0065	K	GELDERSLEEVE C	CHEESE FACTORY	104	600			4	180	80	800	720
0065	A-2	GIBSON JAMES	SAW MILL	251	400	WATER	14	2	40	150	200	50
0064	H	GODFREY C H	MITTEN FACTORY	175	60			2	30	30	125	95
0064	M	GODFREY E L	MITTEN MANUFACTO	175/174				2	30	20	87	67
0065	D-2	GOING S & H & CO	GRIST/FLOUR MILL	105	6000	STEAM	30	2	1000	60000	66000	6000
0065	E-3	GORDON JOHN	SHOE SHOP	174	30			1	100	80	195	115
0064	I-2	GRANT ALEXANDER	COOPER SHOP	259-C	125			2	480	100	700	600
0064	J-2	GUTHRIE WALTER	SPINNING MACHINE	315-H	400	HORSE	1	3	150	30	320	290
0064	J-2	GUTHRIE WALTER	WINDOW BLINDS	309	100	HORSE	1	1	50	20	100	80
0065	F-3	GUTHRIE WILLIAM	SAW MILL	251	1000	WATER	22	2	200	250	480	230
0064	J-1	HALEY JAMES	BLACKSMITH SHOP	329	50			1	300	75	520	445
0065	F-2	HAMILTON H & C	TANNERY	172	31000	WATER	50	22	7209	60000	108000	48000
0065	F-2	HAMILTON H & C	TANNERY	172	5000	WATER	16	3	896	18900	26380	7480
0065	F-3	HARRIS C	SAW MILL	251	2000	WATER	45	6	600	1000	1600	600
0064	K	HARRIS JOHN	SAW MILL	251	3000	WATER	40	8	500	1250	2500	1250
0064	G	HAYS WILLIAM	COOPER SHOP	251	50			1	60	30	135	105
0064	J-1	HEALEY MAURICE ?	BLACKSMITH SHOP	896	100			1	250	60	500	440
0064	J-2	HENRY DAVID	SAW MILL	251	80	WATER	20	2	20	100	160	60
0065	F-2	HEWTON ROBERT	BLACKSMITH SHOP	896	150			2	420	100	600	500

FRONTENAC EXCL. KINGSTON: FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	F-2	HEWTON WILLIAM	WOOLEN FACTORY	182	9000	WATER	20	12	1600	6000	10500	4500
0065	F-2	HOPPINS ABRAM	SAW/SHINGLE MILL	251/251-S	15000	WATER	50	7	1800	4250	7050	2800
0064	J-1	HOWEDANSKI THOMAS	BAKERY	107	150			2	350	2340	2760	420
0065	F-1	HURLEY EDWARD L	BLACKSMITH FORGE	896				1	400	400	1000	600
0065	A-4	HUSE EDWARD	BLACKSMITH	896	100			1	400	215	650	435
0064	J-1	IVEY JOHN	TAILOR SHOP	243	50			1	350	400	1000	600
0065	E-2	JACKSON FREDERICK	CARPENTER SHOP	259	500			2	488	88	660	572
0065	F-2	JACKSON JOHN	SAW MILL	251	1000	WATER	20	2	420	500	1200	700
0065	F-1	JACKSON REUBEN F	BLACKSMITH FORGE	896	150			1	400	160	600	440
0065	A-3	JACKSON SIMON	WAGONMAKER	329-P	100			1	360	45	450	405
0065	A-1	JACKSON WILLIAM	CARRIAGEMAKER	329	750			2	450	260	800	540
0065	A-1	JACQUITH EDWARD	BLACKSMITH/WAGON	329	600			4	1100	120	1200	1080
0064	J-1	JACQUITH WILLIAM	CARRIAGE FACTORY	329	200			1	200	32	250	218
0064	G	JAMAIRI THOMAS	CABINET/TURNING	261	100	WATER	4	1	200	17	300	283
0064	J-2	JOHNSTON IRA	CHAIR FACTORY	261	300			1	75	10	105	95
0064	M	JOHNSTON ANDREW	SHINGLE FACTORY	251-S				2	80	20	100	80
0064	M	JOHNSTON MRS RUTH	TAILORRESS	243				1	12	60	82	22
0065	E-3	KANE SAMUEL	WEAVER	182-W	30			1	60	100	250	150
0065	E-3	KIRKWOOD ALEXANDE	SAW MILL	251	1150	STEAM	25	4	312	1000	1600	600
0065	E-2	KNAPP JAMES	BOAT BUILDING SH	328	100			1	300	150	500	350
0065	E-2	KNAPP WILLIAM	BOAT BUILDING ES	328	200			2	600	220	760	540
0065	F-1	KNIFFEN THOMAS	WAGON/SLEIGH FAC	329	100			1	200	150	700	550
0064	J-1	LAWSON FREDERICK	CARRIAGE FACTORY	329	400			1	300	80	650	570
0065	D-2	LEARUGH EDWARD	CARRIAGE FACTORY	896	200			2	600	300	1000	700
0065	A-2	LENORD HIRAM	BLACKSMITH SHOP	896	100			2	600	60	1000	940
0065	A-2	LENORD NATHANIEL	SAW MILL	251	500	WATER	20	2	180	300	660	360
0065	A-2	LENORD NATHANIEL	WHEELWRIGHT	329	400			2	600	255	1000	745
0065	A-4	LINSEY ROBERT	SHOE SHOP	174	20			1	100	75	188	113
0064	J-1	LOCKHART JOHN	SHOEMAKING	174	50			2	350	400	800	400
0064	H	LOTT GEORGE	SAW MILL	251	700	WATER	30	6	180	600	1050	450
0064	I-1	LOTT GEORGE	SAW MILL	251	2000	WATER			1600	2500	5000	2500
0064	I-1	LOTT GEORGE	FLOUR MILL	105	6000	WATER		2	650	6000	7000	1000
0064	I-1	LOTT GEORGE	CARDING/FULLING	189-W	1000	WATER		1	300	600	900	300
0064	I-1	LOTT GEORGE	POTASH FACTORY	378-P	200			1	100	260	390	130
0065	F-1	LYON LYMAN	CHEESE FACTORY	104	400			1	200	1000	1200	200
0065	D-2	MACAVERY PATRICK	BLACKSMITH FORGE	896	100			2	900	100	1000	900
0064	J-1	MACE WILLIAM	GRIST MILL	105	2000	WATER	20	1	240	2500	3600	1100
0065	E-2	MAGOR WILLIAM	BLACKSMITH SHOP	896	100			1	300	100	400	300
0065	E-2	MALOR GERARD	HARNES SHOP	179-S	10			1	80	50	200	150
0065	E-3	MANGING PATRICK	WEAVER	182-W	20			1	50	250	350	100
0064	J-2	MARTIN CHARLES	SHINGLE FACTORY	251-S	1000	STEAM	16	4	900	825	2160	1335
0064	J-2	MARTIN CHARLES	SAW MILL	251	600	STEAM	16	1	60	420	480	60
0064	J-1	MCCONNELL ROBERT	BLACKSMITH FORGE	329	150			2	500	260	800	540
0065	A-2	MCDONALD WILLIAM	BLACKSMITH SHOP	896	400			3	600	80	800	720
0065	A-1	MCGUIN ANTHONY	FLOUR/FEED MILL	105	6000	WATER	30	2	800	6000	7000	1000
0065	A-1	MCGUIN ANTHONY	SAW MILL	251	200			1	200	200	400	200
0065	E-3	MCILGORM ROBERT	BLACKSMITH SHOP	896	150			2	700	200	1000	800
0064	I-1	MCKIM HIRAM	TANNERY	172	1000			3	720	500	1000	500
0065	A-2	MCKIM PETER	SADDLER/HARNESM	179-S	400			1	300	400	700	300
0065	E-2	MCLANE JOHN	CHEESE FACTORY	104	900			1	180	1920	2400	480
0064	I-2	MCMULLIN JOSEPH	COOPER SHOP	259-C	100			1	240	80	725	645

FRONTENAC EXCL. KINGSTON: FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEPEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0065	E-2	MCROSSIE W	SAW/SHINGLE MILL	251/251-S	20000	STEAM	40	20	4000	16000	24000	8000
0065	F-2	MILLER WILLIAM	SAW MILL	251	500	WATER	12	2	148	150	400	250
0065	F-1	BLACKSMITH GEORGE	BLACKSMITH FORGE	896	.	.	.	1	300	400	800	400
0065	E-3	MURPHY WILLIAM	WEAVER	182-W	20	.	.	1	60	120	240	120
0064	K	NASBET JOHN	BLACKSMITH	896	100	.	.	1	100	50	200	150
0064	G	NEWTON RICHARD	SAW MILL	251	500	WATER	20	1	150	375	800	425
0065	F-2	NOBS GEORGE	BLACKSMITH SHOP	896	140	.	.	1	96	23	300	277
0065	A-1	NORTHMORE JOSEPH	BAKERY	107	1000	.	.	5	1600	7800	9600	1800
0065	A-4	ORSER RHODA	HANDLOOM	182-W	12	.	.	1	90	220	470	250
0064	I-1	PARKIN RICHARD	TAILORING EST	243	50	.	.	1	200	150	410	260
0065	A-2	PAWLEY JACOB	BOOT/SHOE SHOP	174	2000	.	.	2	600	450	1250	800
0064	I-2	PAWLEY WILLIAM	SAW MILL	251	2000	WATER	300	16	2000	2800	5600	2800
0065	B-2	PENITENTIARY	CABINET MANUFACT	261	12000	STEAM	20	50	5400	20000	30000	10000
0065	B-2	PENITENTIARY	BOOT/SHOE MF	174	50000	.	.	125	15000	.	150000	.
0065	B-2	PENITENTIARY	STONE MASONRY	421-S/353	1	.	.	116	13570	2512	17266	14754
0065	B-2	PENITENTIARY	CARPENTER/PAINTE	421-C/421-D	.	STEAM	20	26	4030	5200	12500	7300
0065	B-2	PENITENTIARY	BLACKSMITH SHOP	896	.	STEAM	20	16	3035	2718	5734	3016
0065	B-2	PENITENTIARY	TAILOR SHOP	249	.	.	.	31	2830	4120	6950	2830
0065	B-2	PENITENTIARY	HARNESS SHOP	179-S	.	.	.	2	480	698	1180	482
0065	B-2	PENITENTIARY	SHOE SHOP	174	.	.	.	10	1775	1200	2975	1775
0065	B-2	PENITENTIARY	FEMALE DEPARTMENT	239-K/244	.	.	.	45	2412	1320	3400	2080
0064	I-2	PERCY JOHN	BLACKSMITH SHOP	896	280	.	.	1	260	300	800	500
0065	F-1	PERRY GEORGE	SAW MILL	251	1000	WATER	16	1	300	1000	1500	500
0064	I-2	PETERS ELI J J	WAGONMAKER	658	100	.	.	1	100	20	200	180
0064	I-1	PHILLIPS ABRAHAM	CARRIAGE FACTORY	329	300	.	.	3	625	226	1950	1724
0064	I-2	PIERCE JOSHUA R	FLOUR MILL	105	100	WATER	20	1	130	60	190	130
0064	O	PLAYFAIR ELISHA	SAW MILL	251	300	WATER	.	1	200	109	400	291
0064	O	PLAYFAIR ELISHA	GRIST MILL	105	600	WATER	.	1	200	3000	3500	500
0065	A-3	POPE JOHN	BLACKSMITH FORGE	896	300	.	.	2	600	400	1600	1200
0065	B-1	PORTSMOUTH RAILWA	RAILWAY SHOP	327	5000	HORSE	4	20	6000	2550	10000	7450
0064	I-1	POULEY MATTHEW	BLACKSMITH FORGE	896	100	.	.	1	500	60	600	540
0065	A-2	PROV HARDWARE MF	BLACKSMITH FORGE	309-S/306	8000	STEAM	25	75	20000	18000	50000	32000
0065	A-2	PURDY DAVID	WAGON/CARRIAGE S	329	500	.	.	1	200	100	350	250
0064	J-1	PURDY LEWIS	SAW MILL	251/251-S	2000	STEAM	16	5	1200	1800	5100	3300
0065	F-1	PURDY MARSHALL	HARNESS SHOP	179-S	100	.	.	1	400	400	1000	600
0064	J-1	RANKIN MICHAEL ?	HARNESS SHOP	179-S	100	.	.	2	300	300	600	300
0064	J-2	REA WILLIAM	SAW MILL	251	150	WATER	20	1	30	200	240	40
0065	E-2	REEVE JOHN	COOPER SHOP	259-C	50	.	.	1	400	52	530	478
0065	E-3	REYNOLDS JOHN	BLACKSMITH SHOP	896	60	.	.	1	160	15	185	185
0064	J-1	RICHARDSON WILLIA	CARDING/FULLING	189-W	1000	WATER	8	3	400	1000	1800	800
0065	A-1	RILEY EDWARD	BLACKSMITH FORGE	896	200	.	.	2	400	160	800	640
0064	K	ROGERS JOSEPH	SHOE MAKING EST	174	100	.	.	1	100	452	600	148
0065	E-2	RUDD T G	LIMESTONE QUARRY	353	4000	.	.	6	1500	300	2400	2100
0065	E-2	RUDD T G	SANDSTONE QUARRY	353	800	.	.	7	1000	500	2500	2000
0064	J-2	RUSS SAMUEL	BLACKSMITH	896	100	.	.	1	500	10	600	590
0064	I-1	RUSSELL WILLIAM	BLACKSMITH FORGE	896	60	.	.	1	300	400	700	300
0065	D-2	SANDERS JOHN	TAILOR SHOP	242	100	.	.	1	564	364	1000	636
0065	A-3	SANSON WILLIAM	WAGONMAKER	329	200	.	.	3	300	800	1300	500
0065	B-1	SCHRODER JAMES	SAUSAGEMAKER	101-P	5000	.	.	3	1000	2000	3457	1457
0064	J-2	SEARS WILLIAM	BLACKSMITH FORGE	896	100	.	.	1	300	10	400	390
0065	F-2	SHANNON & MACMILL	WAGON/SLEIGH FAC	329	300	.	.	2	675	197	980	783

FRONTENAC EXCL. KINGSTON: FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUNRAWC	SUMPROC	VADD
0065	E-2	SHARMAN JACOB	JOINER/BOATBUILD	328	100			2	320	175	510	335
0065	D-2	SMETHERS WILLIAM	BOAT SHOP	328	140			2	500	100	790	690
0065	E-2	SMITH EDWARD	GRIST MILL	105	6000	WATER	80	2	692	9500	11300	1800
0064	I-1	SMITH IRA	BLACKSMITH FORGE	311/329	45			2	600	300	1225	925
0064	I-2	SMITH JAMES	BLACKSMITH SHOP	896	75			1	313	250	656	406
0064	J-2	SMYTH GEORGE	SAW MILL	251	1200	WATER	18	3	170	450	2400	1950
0064	F	SNIDER CHARLES S	SAW MILL	251	2000	WATER	8	2	192	600	1000	400
0064	F	SNIDER CHARLES S	MARBLE MILL	353	25	WATER	8	3	25	40	75	35
0064	I-1	SPIKE AARON	CHEESE FACTORY	104	1000			1	124	982	1106	124
0065	F-1	SPOONER HIRAM	CHEESE FACTORY	104	200			1	200	500	780	280
0065	A-3	STAGGS JOHN W	CLOTH MANUFACTORY	182-W	40			4	750	1500	2600	1100
0064	H	STEEL JOHN	BLACKSMITH	896	200			2	360	220	900	680
0064	I-1	STEWART SAMUEL	POTASH MANUFACTO	378-P	400			2	80	300	420	620
0065	A-2	STURGES EMANUEL	LIME KILN	358-L	50			2	200	180	800	620
0065	D-2	SWEATMEN M	CARPENTER SHOP	259	120			1	225	80	600	520
0064	K	TAGGART JOSEPH	SAW MILL	251	400	WATER	12	1	40	100	200	100
0065	F-1	TEEBELL NATHANIEL	BLACKSMITH FORGE	896				1	400	240	660	420
0065	E-2	TEDELL ALEX	BOAT BUILDING ES	328	160			1	400	140	540	400
0064	I-1	THOMPSON WILLIAM	TANNERY	172	140			1	200	1200	2400	1200
0065	F-2	THORN & ANGLIN	SAW MILL	251	2000	WATER	25	4	960	1300	4400	3100
0065	A-2	TOWNSEND ROBERT	TINSMITH SHOP	304-T	300			2	350	30	450	420
0064	J-1	TRISSADAL WESLEY	BAKERY	107	60			2	200	1500	2559	1059
0064	J-1	VANALSTINE LAMBER	CARRIAGE FACTORY	329	100			2	110	60	400	340
0065	A-4	VANLUVIN WILLIAM	HARNES SHOP	179-S	100			1	100	50	170	120
0065	F-2	VANLUVIN HENRY	GRIST MILL	105	10000	WATER	30	2	650	8500	9200	700
0065	D-2	VENESS GEORGE	CARPENTER SHOP	259	150			2	150	60	210	150
0064	I-2	VENNEST PETER	SAW MILL	251	600	WATER	20	3	104	250	600	350
0065	F-2	WALKER DAVID	WAGON/SLEIGH FAC	329	150			2	812	132	400	268
0065	A-1	WALKER GEORGE	CARPENTER SHOP	315/311	1000	HORSE	4	2	400	150	2000	1850
0064	I-1	WALSWORTH HENRY	SHINGLE FACTORY	251-S	1500	STEAM	16	6	1000	1500	5000	3500
0064	K	WARREN L M	SAW/SHINGLE MILL	251/251-S	5000	STEAM	40	40	6000	14000	36800	22800
0065	A-4	WARTMAN BARNABAS	SHINGLE FACTORY	251-S	800	STEAM	18	6	194	300	1700	1400
0065	A-4	WARTMAN PETER	SAW MILL	251	400	WATER		2	200	75	300	225
0064	J-1	WATERS BUCKLEY	WHEEL/REEL FACTO	315-H/259-W	600	WIND	6	1	400	50	460	410
0064	M	WEAGAR GEORGE	SHOE SHOP	174	30			1	80	80	176	96
0064	M	WEAGER MRS P	WEAVING SHOP	182-W	20			2	70	302	524	222
0065	D-3	WHITMORE LAURINDA	WEAVER	182-W	15			1	100	210	340	130
0064	J-1	WILLIAMS CORNELIU	WAGON SHOP	329	100			1	150	6	250	244
0064	G	WILLIAMS JAMES	SAW MILL	251	500	WATER	20	1	200	400	980	580
0065	A-4	WILSON ALEXANDER	BLACKSMITH SHOP	896	200			2	600	150	1000	850
0065	F-1	WOLFE WELLINGTON	CHEESE FACTORY	104	500			2	300	1600	2000	400
0064	J-1	WOOD JAMES	SHINGLE MILL	251-S	2500	WATER	20	7	1572	3200	7000	3800
0064	J-2	WRIGHT JAMES	TURNING LATHE	315-H/261	80	WATER	1	1	40	10	60	50
0064	K	YOUNG JAMES	SAW MILL	251	500	WATER	12	2	100	300	450	150
0065	F-3	YOUNG WILLIAM	SAW MILL	251	1000	WATER	25	2	400	450	1050	600
					403903			2033	1383	249091	539254	1195411
												506157

Table A-9: Kingston: Firms by Name of Proprietor, 1871

KINGSTON: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	D	ADAMS WILLIAM	SHOEMAKER	174	100				2600	3000	6600	3600
0066	B	ALDERDICE JOHN	BOOT/SHOE SHOP	174	20				50	120	234	114
0066	E	ALLEN WILLIAM	BOOT/SHOEMAKER	174	300				2000	1300	2600	1300
0066	G	ALLEN WILLIAM	TIN/COPPER/IRONS	304-T	200				858	800	2000	1200
0066	G	ANDERSON ELIZABE	DRESSMAKING	244	100				600	3000	3700	700
0066	G	ANDERSON DAVID	CONFECTIONERY	108-C	200				486	1478	2964	1486
0066	D	ANDREWS GEORGE	MERCHANT TAILOR	242	1000				3120	1000	5000	4000
0066	D	ANGLIN CECILIA	MILLINER	249-M	200				500	2500	4000	1500
0066	G	ANGLIN & HARTNER	SAW MILL	251	7000	STEAM	25		858	3900	5616	1716
0066	C	BABCOCK CATHERI	DRESSMAKER	244	100				200	1000	1500	500
0066	C	BAILEY B & CO	BROOM FACTORY	399-B	400				4100	1100	12000	10900
0066	C	BAILEY B & CO	BRUSH FACTORY	399-B	400				3250	600	6500	5900
0066	D	BAILLIE H & I	PRINTER	286	1500				1000	300	1600	1300
0066	G	BAJUS JACOB ?	BREWER	109-B	16000	STEAM	6		2028	6750	14000	7250
0066	B	BARKER EDWARD	PRINTING OFFICE	289	5000				3640	2000	9000	7000
0066	D	BEATTIE ALEXAND	ROPE FACTORY	184	1000				1000	2050	3500	1450
0066	D	BOWER TIMOTHY	BOOT/SHOEMAKER	174	100				1200	1000	2400	1400
0066	C	BRAHAME HENRY	CABINETMAKER	261	2000	HORSE	1		2000	860	8000	7140
0066	F	BROKENSHERE JOHN	PUMP FACTORY	315-P	1500				2347	1300	6000	4700
0066	B	BROWN & JOHNSTON	FOUNDRY	311/315	3000	STEAM	10		2000	2000	4130	2130
0066	D	BROWN EDWIN & CO	TIN/COPPERSMITH	304-T	5000				4800	10550	20000	9450
0066	D	BRUNELL ARCHIBALD	SHOEMAKER	174	100				400	324	1300	976
0066	D	BUXTON HARRIET	MANTLEMAKER	244	100				300	10	400	390
0066	F	CANADIAN ENGINE C	RAILWAY CARS/ENG	326	200000	STEAM	20		75000	200988	306000	105012
0066	C	CANNOR WILLIAM	TAILOR	243	100				300	2000	3000	1000
0066	B	CARNOVSKY ROBERT	BAKERY/CONFECTION	107/108-C	500				1000	7025	11000	3975
0066	C	CASWELL ROBERT	CARRIAGEMAKER	329	200				600	72	940	868
0066	G	CHOWN & CUNNINGHA	STOVE/IRON FOUND	307-S/304	25000	STEAM	15		15000	11200	32500	21300
0066	E	CHOWN SARAH & SON	TIN/IRON/COPPER	304-T	300				800	1000	2500	1500
0066	G	CICOLARI ALEXANDE	CONFECTIONERY/SA	108-C	2000				800	2000	3500	1500
0066	D	CONLEY THOMAS	MERCHANT TAILOR	242	100				1040	3000	2250	2250
0066	E	CUMMINGS HUGH	BAKERY	107	1000				700	5400	7313	1913
0066	D	DALY PATRICK	MERCHANT TAILOR	242	50				614	600	1414	814
0066	F	DAVIDSON ANDREW	CARPENTER/BUILD	421-C	400				4000	1000	10000	9000
0066	G	DAVIDSON & DORAN	MACHINE SHOP	315-E/315	15000	STEAM	15		11000	11100	40000	28900
0066	G	DAVIS JAMES	SHOEMAKER	174	50				400	300	900	600
0066	G	DILLON JOSEPH	BOOT/SHOEMAKER	174	1000				3000	5000	9600	4600
0066	E	DOHERTY JAMES	BOOT/SHOEMAKER	174	100				600	515	1215	700
0066	C	DOLAND MARTIN	HARNESSMAKER	179-S	100				1200	594	2400	1806
0066	D	DORAN B & CO	MILLINERY	249-M/244	100				535	10000	12000	2000
0066	D	DORSEY RICHARD	TIN PLATE WORKER	304-T	750				1800	2810	6000	3190
0066	G	DOUGHERTY PATRICK	BLACKSMITH	896	150				670	120	1290	1170
0066	A	DOWNING & CO	BREWERY	109-B	1000				1600	6223	12000	5777
0066	D	DOYLE JOANNA & C	MILLINERY	249-M/244	100				400	3000	4000	1000
0066	E	DUMBLE HENRY	CONFECTIONERY	108-C	750				2650	820	2650	1830
0066	C	ELMES JOHN D	CONFECTIONER	108-C	200				300	312	1400	1088
0066	E	FAHEY MICHAEL	CLOTHES	242	5000				3408	7500	11000	3500
0066	F	FAHEY MISS R	DRESS MAKING EST	244					312	1170	1482	312
0066	F	FALCONER & HORN	SAIL MAKING EST	187	5000				1200	6500	8600	2100
0066	F	FAWCETT MRS	DRESS MAKING EST	244					300	1248	1548	300
0066	C	FROILAND JENS	GOLD/SILVERSMITH	695	400				400	100	600	500

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	D	GAGE MATTHEW	WATCHMAKER	695	500		.	4	1600	40	2400	2360
0066	G	GARRIGAN JAMES	BOOT/SHOEMAKER	174	100		.	3	800	522	1800	1278
0066	F	GILDERSLEEVE C F	IRON/MACHINERY	327-M	5000	STEAM	8	41	10000	9500	30000	20500
0066	D	GRAHAM THOMAS	BAKER	107	1000		.	4	1400	8580	13870	5290
0066	D	GRAVES REUBEN	SADDLER	179-S	100		.	2	600	400	1600	1200
0066	E	GRAY ARTHUR W	BREAD/CONFECTION	107/108-C	1000	STEAM	8	4	1000	750	1750	1000
0066	F	GRAY DAVID	PLANING MILL	251	1000		.	2	325	200	1980	1780
0066	G	GROH WILLIAM	FURRIER	246	10		.	3	376	5000	7500	2500
0066	D	HACKIT & JOHNSTO	SHOEMAKER	174	10		.	2	200	200	800	600
0066	D	HAY WILLIAM	MERCHANT TAILOR	242	200		.	15	3000	11250	16000	4750
0066	B	HENDRY ROBERT	SOAP/CANDLE FACT	376	4000		.	4	700	3000	4100	1100
0066	G	HUME WALTER	SHOEMAKER	174	25		.	1	250	170	500	330
0066	G	HUTCHINSON/CROTHER	BAKERY/CONFECTION	107/108-C	1200	STEAM	6	6	2184	8882	13566	4684
0066	E	IRVING W & J	SASH/DOOR FACTOR	254	8500	STEAM	8	12	3000	2500	6000	3500
0066	C	JENKINS EDWARD	BLACKSMITH	896	100		.	2	60	200	600	400
0066	B	JENKINS JOHN	CARRIAGE FACTORY	329	1400		.	8	2800	1130	4295	3165
0066	B	JENKINS SAMUEL	CARPENTER SHOP	421-C	50		.	4	1000	1000	2500	1500
0066	D	JOHNSTON JAMES	WATCHMAKER	695	1000		.	2	1000	50	1525	1475
0066	C	JOHNSTON THOMAS	CONFECTIONER	108-C	300		.	4	400	1625	3000	1375
0066	G	KANE DENNIS	CARRIAGE/SLEIGH	329	200		.	3	900	1400	2000	600
0066	F	KARCH ANTOINE	SPICE MILL	108	2500	STEAM	4	2	800	8000	9500	1500
0066	C	KEMP GEORGE	CARRIAGEMAKER	329	1500		.	6	2000	90	2200	2110
0066	G	KERR JOHN	GAS LIGHT COMPAN	574	80000		.	6	1768	4250	13713	9463
0066	D	KING JOSEPH	DRUGGIST	374	500		.	2	320	400	1260	860
0066	F	KINGSTON WATER WO	WATER WORKS	576	125000	STEAM	12	9	9000	4000	15000	11000
0066	D	KINNEAR ELIZABE	MILLINER	249-M	300		.	10	800	2500	4000	1500
0066	D	LACEY W P & CO	MILLINERY	249-M	40		.	2	200	3000	4000	1000
0066	F	LAVAGE THOMAS & S	PAINT SHOP	421-D	600		.	6	800	751	2000	1249
0066	F	LAVERTY MISS	DRESS MAKING EST	244			.	4	416	1248	1664	416
0066	B	LAW EDWARD	ROPE FACTORY	184	1200		.	7	1100	2325	4000	1675
0066	D	LEVEY ARNOLD	CLOTHIER	242	500		.	4	750	3000	4700	1700
0066	E	LIGHTFOOT WILLIAM	PRINTING OFFICE	286	3000		.	4	600	1700	4000	2300
0066	D	LINDSAY JOHN	SHOEMAKER	174	10		.	2	200	10	312	302
0066	A	LIVINGSTON A & CO	BREWERY	109-B	15000	STEAM	10	6	2700	13940	26200	12260
0066	D	LIVINGSTON CHARLE	MERCHANT TAILOR	242	100		.	6	1000	2000	4000	2000
0066	F	MAIN ADAM	FURNITURE SHOP	261	400		.	3	780	60	1500	1440
0066	C	MASSEY WILLIAM	CARPENTER/BUILDE	421-C	1000	STEAM	8	6	900	500	2000	1500
0066	F	MCCAMMON ROBERT	BAKERY	107	2000		.	5	2000	9363	13803	4440
0066	D	MCCAULEY THOMAS	BOOKBINDING	287-B	2000		.	7	1600	800	3000	2200
0066	F	MCCORKILL JOHN	BOAT BUILDING ES	328	600		.	3	365	36	500	464
0066	G	MCCUTCHEON THOMAS	POTASH MANUFACTO	378-P	3000		.	2	624	1200	3860	2660
0066	G	MCDERMOTT JOHN	CARRIAGEMAKER	329	500		.	3	940	800	2000	1200
0066	D	MCDERMOTT PATRICK	CABINETMAKER	261	1200	STEAM	8	3	827	120	1200	1080
0066	F	MCELROY MRS	DRESSMAKER/MILLI	244/249-M			.	6	900	2625	3550	925
0066	G	MCEWEN DANIEL & S	BOILERS/BLACKSMI	301/327	1000	STEAM	6	8	1800	1500	4000	2500
0066	D	MCKAY DONALD	MERCHANT TAILOR	242	200		.	9	1200	6000	8000	2000
0066	D	MCKAY JOHN	GLOVEMAKER	175	90		.	3	260	240	600	360
0066	D	MCKELVEY JOHN & C	TIN/COPPERSMITH	304-T	700		.	12	3900	5500	10000	4500
0066	F	MCMAHON JOHN	CARPENTER SHOP	421-C	1000		.	5	1500	200	2000	1800
0066	D	MCNAUGHTON JOHN &	CLOTHIER	242	200		.	22	8000	12000	26000	14000
0066	B	MCRAE THOMAS	CARRIAGE FACTORY	329	3000		.	12	3450	1550	6600	5050

KINGSTON: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
0066	F	MCITHEVER MISS	DRESS MAKING	244	.	.	.	5	500	1560	2060	500
0066	D	MEADOWS BENJAMIN	SOAP/CANDLEMAKER	376	800	.	.	2	600	3000	4100	1100
0066	D	MEVES OTTO	GOLD/SILVERSMITH	392	1000	.	.	6	1500	1500	3600	2100
0066	G	MILLER JOHN	SHIP CARPENTER	327	400	HORSE	1	4	637	300	1437	1137
0066	D	MOORE THOMAS	MERCHANT TAILOR	242	600	.	.	25	5000	27000	33750	6750
0066	G	MOWAT OLIVER	COOPER	259-C	50	.	.	1	312	30	430	400
0066	E	NEISH JAMES	PRINTING OFFICE	289	6000	.	.	20	4000	3500	10000	6500
0066	F	O'GORMAN MICHAEL	BOAT BUILDING	328	1650	.	.	6	2300	200	2500	2300
0066	E	O'MARA MICHAEL	BLACKSMITH SHOP	309	100	.	.	2	450	100	1000	900
0066	G	OBENDORFFER SIMO	CIGAR MANUFACTORY	153	200	.	.	8	1500	3000	8000	5000
0066	E	PHIPPEN BETSY	POTASH/CANDLE FACT	376	1200	.	.	3	410	1300	2000	700
0066	G	PHIPPEN SAMUEL	POTASH/SOAP MF	378-P/376	1200	STEAM	6	5	1400	2700	5800	3100
0066	D	PILLAR WILLIAM	BAKER	107	200	.	.	2	624	5574	7293	1719
0066	G	PIPE WILLIAM	SODA WATER MF	109-S	2000	.	.	3	728	3000	6200	3200
0066	D	PISATI GUISEPPE	PORK CURING	101-P	200	.	.	1	400	712	1500	788
0066	F	POWER WILLIAM & C	SHIP YARD	327	35000	STEAM	25	68	21500	12000	40000	28000
0066	E	RAMAGE JOHN	SILVERSMITH/WATC	392	600	.	.	2	960	140	1100	960
0066	G	RAPPE CHARLES	PIANO MANUFACTUR	399-P	1500	.	.	13	900	10000	15000	5000
0066	D	REID JAMES	CABINETMAKER	261	10	HORSE	1	4	1300	250	2000	1750
0066	D	REYNER JOSEPH & C	MELODEON/ORGANMA	399-P	500	.	.	11	4000	2000	7500	5500
0066	F	ROBERTSON BENJAMI	SOAP FACTORY	376	5000	STEAM	10	10	3200	50000	60000	10000
0066	E	ROBINSON WILLIAM	PAINT SHOP	375	300	.	.	5	1800	540	3000	2460
0066	G	RONDON FRANCIS	SAUSAGEMAKER	101-P	20	.	.	1	175	175	210	35
0066	C	ROSE ANN	DRESSMAKER	244	100	.	.	5	400	2000	3000	1000
0066	D	ROSS ALEXANDER	MILLINERY	249-M	100	.	.	6	850	4500	6000	1500
0066	G	ROSS ELIZABETH	BAKERY	107	50	.	.	3	884	4000	5500	1500
0066	G	ROURKE JOHN	POTASH/SOAP MF	378-P/376	5000	STEAM	6	9	3120	8700	16800	8100
0066	G	ROWLANDS & HOFER	PIANO MANUFACTORY	399-P	5000	STEAM	10	54	24000	50000	56250	6250
0066	D	SANDS JOHN	MERCHANT TAILOR	242	200	.	.	11	2080	3000	5700	2700
0066	D	SEALE THOMAS	CLOTHIER	242	350	.	.	16	4000	9000	14000	5000
0066	E	SHAW JAMES	SOAP/CANDLE FACT	376	400	.	.	1	400	400	820	420
0066	C	SHERLOCK JOHN M	TAILOR	243	100	.	.	3	500	2500	3500	1000
0066	D	SHIELDS JOHN	TINSMITH	304-T	300	.	.	6	2210	1500	5000	3500
0066	D	SKINNER JAMES A	WHITESMITH	309	500	.	.	4	1400	600	2500	1900
0066	D	SLAVIN JAMES	MERCHANT TAILOR	242	75	.	.	6	1600	3500	6000	2500
0066	C	SMITH JAMES	POTASH MANUFACTO	378-P	200	.	.	2	500	350	960	610
0066	E	SMITH ALEXANDER	BOOTS/SHOES	174	500	.	.	7	1400	2500	4000	1500
0066	D	SPANGENBURG GEORG	GOLD/SILVERSMITH	392	800	.	.	4	2400	1550	5900	4350
0066	F	SPRIGGS MRS	DRESS MAKING	244	.	.	.	8	314	3455	4160	705
0066	G	SUTHERLAND ALEXAN	BOOT/SHOE MF	174	600	.	.	9	2446	2050	7446	5396
0066	D	SWANSEN ADAM	BAKER	107	1000	.	.	4	1040	11232	14956	3724
0066	C	TANDY R	MARBLE FACTORY	353	400	.	.	7	1500	500	3000	2500
0066	E	THOMPSON THOMAS	BOOT/SHOEMAKER	174	100	.	.	4	900	1100	3000	1900
0066	D	THOMPSON ADAM	MERCHANT TAILOR	242	.	.	.	8	1600	3000	5600	2600
0066	C	TIPSON ANDREW	TAILOR	243	300	.	.	3	240	2080	3120	1040
0066	E	TOSSILL RICHARD	BUILDER/STONECUT	421-S/353	3000	HORSE	8	18	6040	1350	12000	10650
0066	G	TRACY FRANCIS	BLACKSMITH	896	1000	STEAM	6	6	1000	350	2000	1650
0066	G	TWEADELL MARY	HAT/FUR MANUFACT	246	100	.	.	3	520	200	750	550
0066	G	WALKER ROBERT	SADDLE/HARNESSMA	179-S	40	.	.	3	520	360	1500	1140
0066	E	WALLIS JAMES	PHOTOGRAPHER	893	700	.	.	3	1150	700	20000	19300
0066	C	WELCH EDWIN R	MARBLE FACTORY	353	400	.	.	6	1900	2800	6500	3700

KINGSTON: ALL FIRMS BY NAME OF PROPRIETOR, 1871

CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
O066	C	WELLS	HARNESSMAKER	179-S	50		.	4	900	396	1800	1404
O066	G	WHITE SAMUEL P	TOBACCO MANUFACT	153	600		.	10	2000	6000	10000	4000
O066	G	WILKINSON CHARLES	SADDLE/HARNESSMA	179-S	300		.	2	624	1800	2800	1000
O066	F	WILLIAMSON & WELC	CARPENTER SHOP	421-C	400		.	4	1200	250	2000	1750
O066	C	WILMOT NATHANI	BLACKSMITH SHOP	896	300		.	4	1000	400	2000	1600
O066	D	WILTON HENRY	HARNESSMAKER	179-S	75		.	3	700	400	1200	800
O066	E	WOOLARD ROBERT	BOOT/SHOE FACTOR	174	300		.	3	500	600	2000	1400
O066	D	WRIGHT CLARK	HATTER/FURRIER	246	300		.	9	1759	5500	12000	6500
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					659675		243	1330	377804	751850	1396336	644486

Table A-10: Portsmouth/Penitentiary: Firms by Name of Proprietor, 1871

PORTSMOUTH/PENITENTIARY: ALL ESTABLISHMENTS BY PROPRIETOR, 1871												
CDID	CED	PROPRIOR	TYPEEST	SIC	FIXCAP	TYPEPOW	FORCE	TOTEMP	WAGES	SUMRAWC	SUMPROC	VADD
O065	B-1	CAMERON & MUDIE	CARPENTER SHOP	421-C	4000			8	2750	2870	7000	4130
O065	B-1	CARRUTHERS- I & CO	TANNERY	172	20000	STEAM	15	18	5000	30000	45000	15000
O065	B-1	FISHER JAMES & SO	BREWERY	109-B	10000	STEAM	6	4	1400	4746	13600	8854
O065	B-2	PENITENTIARY	CABINET MANUFACT	261	12000	STEAM	20	50	5400	20000	30000	10000
O065	B-2	PENITENTIARY	BOOT/SHOE MF	174	50000			125	15000		150000	
O065	B-2	PENITENTIARY	STONE MASONRY	421-S/353	1			116	13570	2512	17266	14754
O065	B-2	PENITENTIARY	CARPENTER/PAINTE	421-C/421-D		STEAM	20	26	4030	5200	12500	7300
O065	B-2	PENITENTIARY	BLACKSMITH SHOP	896		STEAM	20	16	3035	2718	5734	3016
O065	B-2	PENITENTIARY	TAILOR SHOP	249				31	2830	4120	6950	2830
O065	B-2	PENITENTIARY	HARNESS SHOP	179-S				2	480	698	1180	482
O065	B-2	PENITENTIARY	SHOE SHOP	174				10	1775	1200	2975	1775
O065	B-2	PENITENTIARY	FEMALE DEPARTMENT	239-K/244				45	2412	1320	3400	2080
O065	B-1	PORTSMOUTH RAILWA	RAILWAY SHOP	327	5000	HORSE	4	20	6000	2550	10000	7450
O065	B-2	PROV HARDWARE MF	HARDWARE MANUFAC	309-S/306	8000	STEAM	25	75	20000	18000	50000	32000
O065	B-1	SCHRODER JAMES	SAUSAGEMAKER	101-P	5000			3	1000	2000	3457	1457
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					114001		110	549	84682	97934	359062	111128

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